# REPORT OF INSPECTOR OF MINES.

Office of Inspector of Mines, Brazil, Ind., July, 1894.

Hon. S. S. Gorby, State Geologist, Indianapolis, Ind.:

Sir.—As required by statute, I herewith present my annual report for the year 1893, and the annual report of the Inspector of Mines for the same year.

THOMAS McQUADE,
Inspector of Mines, Indiana.

# REPORT OF INSPECTOR OF MINES.

In beginning this report, I desire to say that I very much regret the delay in filing the same, but circumstances over which I had no control prevented my doing so earlier.

The total number of tons of coal of all kinds produced in Indiana was 4,358,897. The average number of men employed was 7,431. Total number of mines, 183. Total number coal-producing counties, 19. Total number scales tested, 8. Total number of fatal accidents, 22. Total number non-fatal accidents, 35. Average number of mules employed, 535.

## LIST OF FATAL ACCIDENTS.

The following is a list of fatal accidents reported to me:

- February 16, 1893. F. P. Lewis, killed by fall of coal in Star mine, owned by Coal Bluff Co., in Vigo County.
- March 4, 1893. Barney Mycrs, killed by explosion of keg of powder in Hercules mine, owned by Coal Bluff Co., in Vigo County.
- March 13, 1893. John Johnson was killed by being run over by flat car at New Kentucky mine. No. 1, owned by New Kentucky Coal Co., in Parke County.
- March 16, 1893. Philip Boyer, killed by fall of slate in No. 2 mine, owned by Brazil Block Coal Co., in Clay County.
- April 5, 1893. Bernard Grillice, killed by fall of coal in No. 10 mine, owned by Brazil Block Coal Co., in Clay County.
- April 12, 1893. Isaac Anderson, killed by falling shed over flat car at Hazel Creek Coal Co.'s No. 1 mine, in Vermillion County.
- May 25, 1893. John Walkinshaw, killed by fall of slate in America Beauty mine, owned by Zeller & Sigler, in Clay County.
- July 5, 1893. Joe Craven, killed by bank cars running down incline and catching him in mouth of slope at No. 9 mine, owned by Parke County Coal Co., in Parke County.
- July 14, 1893. Alexander Waugh, killed by fall of slate in No. 3, owned by B. B. Coal Co., in Clay County.

- Aug. 11, 1893. S. J. Barker, killed by fall of slate in New Nickel Plate mine, owned by Jackson Coal Co., in Clay County.
- Aug. 18, 1893. Wm. McMahon, killed by fall of slate in Brier Hill mine, owned by John H. Zeller Coal Co., in Clay County.
- Aug. 20, 1893. Andrew Sipp, killed by coal flying from shot that he was trying to fire, said shot going off unexpectedly, in Anderson's No. 2 mine, in Vermillion County.
- Sept. 6, 1893. John W. Martin, killed by fall of slate in Mecca mine No. 1, owned by Mecca Mining Co., in Parke County.
- Sept. 2, 1893. Alexander Gillmore, killed while returning to a shot by its exploding unexpectedly, the coal from same striking him, while at work in Mecca mine No. 1, owned by Mecca Mining Co., in Parke County.
- Dec. 13, 1893. Fritz Telton, killed by fall of slate in Hercules mine, owned by Coal Bluff Co., in Vigo County.
- Dec. 15, 1893. Peter Zenie, killed by fall of slate in Anchor mine, owned by Coal Bluff Co., in Clay County.

## LIST OF NON-FATAL ACCIDENTS.

- January 10, 1893. John Fleming, injured in abdomen and lower part of ribs by fall of slate in No. 8 mine, owned by Brazil Block Coal Co, in Clay County.
- January 16, 1893. John Patree, burned about face and hands by explosion of shot while drilling out tamping in side of hole that had failed to explode with a squib, in Hoosier Coal Co.'s mine, in Clay County.
- January 18, 1893. James Alsip, collar bone broken while coupling cars in No. 9 mine, owned by Brazil Block Coal Co., in Clay County.
- February 10, 1893. J. Russell, head and back injured by fall of slate in Gartside mine, owned by Watson, Little & Co., in Clay County.
- March 22, 1893. A. Graves, leg broken while riding between cars in No. 2 mine, owned by Crawford Coal Co., in Clay County.
- April 18, 1893. Edward Oliver, leg broken by being squeezed between bank cars at No. 7 mine, owned by Parke Coal Co., in Parke County.
- April 25, 1893. Frank Mertinger, leg broken by falling between bank cars and being run over in No. 6 mine, owned by Parke County Coal Co., in Parke County.
- May 23, 1893. J. R. Moore, foot mashed by fall of slate in No. 2 mine, owned by Crawford Coal Co., in Clay County.
- May 31, 1893. James Alley, arm dislocated and injured internally by cage being let down upon him at Brier Hill mine, owned by Morrier Coal Co., in Clay County.

- July 5, 1893. Otto Grogan, Wm. Blanketer and Rolley Grogan, all injured by empty cars coming down incline, with chain attached, and catching them in mouth of slope, at No. 9 mine, owned by Parke County Coal Co., in Parke County.
- July 8, 1893. Walter Slaters, leg broken by being squeezed between cars of coal and mule in No. 9 mine, owed by Parke County Coal Co., in Parke County.
- July 8, 1893. Ed. Godden, seriously injured about head by chunk of coal at No. 3 mine, owned by B. B. Coal Co., in Parke County.
- August 4, 1893. Elija Bridwaters, injured in back and legs by fall of slate in Eureka mine No. 1, owned by Eureka Block Coal Co., in Clay County.
- September 5, 1893. M. Kalafa, two ribs broken by fall of slate in No. 1 mine, owned by C. Ehrlich & Co., in Clay County.
  September 10, 1893. Wm. Russell, head injured by rock falling down
- September 10, 1893. Wm. Russell, head injured by rock falling down Brazil shaft while shaft was being sunk, owned by Jackson Coal Co., in Clay County.
- November 15, 1893. Silas Leonhart, fell down shaft, breaking his shoulder and receiving internal injuries, in New Nickel Plate mine, owned by Jackson Coal Co., in Clay County.
- December 7, 1893. P. Quinne, head and back injured by fall of slate in Gartside mine, owned by Watson, Little & Co., in Clay County.

Below is given a list of scales tested, date of test, and brief statement as to condition of scales at time of test. It is a noticeable fact that but one scale tested last year was found incorrect, and that one was really not in use. The test was made for the purpose of determining whether or not the condition of the scale was such as to permit its use. While this is a creditable condition for our scales to be found in, yet the complaints so common among miners about weights still continue, but not to the extent of former years. In my judgment the law requiring test weights to be kept at the mines ready for use at any time has done much to give to the miner the opportunity of ascertaining at any time the exact condition of the scales at the mine where he works.

## SCALES TESTED.

- February 27, 1893. New Nickel Plate mine, owned by Jackson Coal Co., in Clay County; scales tested and found correct.
- May 22, 1893. Grant mine, owned by Grant Coal Coal, located in Vigo County; scales tested and found incorrect.
- May 25, 1893. No. 9 mine, owned by B. Block Coal Co., in Clay County; scales tested and found incorrect.
- May 25, 1893. Gartside mine, owned by Watson, Little & Co., in Clay County; scales tested and found correct.

- July 24, 1893. Seelyville mine, owned by P. Ehrlich & Co, in Vigo
- County; scales tested and found correct.

  November 4, 1893. Eureka mine No. 2, owned by Eureka Coal Co., in Clay County; scales tested and found correct.

  November 4, 1893. No. 1 mine, owned by Crawford Coal Co., in Parke County; scales tested and found correct.
- November 21, 1893. No. 6 mine, owned by Parke County Coal Co., in Parke County; scales tested and found correct.

#### MINES INSPECTED.

#### CLAY COUNTY.

#### No. 1 Mine.

Owned by B. B. Coal Co. Located one and one-half miles north of Knightsville. This mine was worked out and abandoned during the year.

#### No. 2 Mine.

Owned by B. B. Coal Co. Located one mile northwest of Harmony. This mine was worked out and abandoned July 1, 1893.

## No. 3 Mine.

Owned by Brazil Block Coal Co. Located two miles northwest of Harmony. This mine was visited several times. On June 1, at my request, the west side of top vein was abandoned, the roof being so bad it was considered too dangerous to work. On my last visit only a few men were working in top vein on east side of shaft. In bottom vein the ventilation was fairly good, but the coal was all low and it is not likely that this shaft will last long.

## No. 4 Mine.

Owned by B. B. Coal Company. Located two miles north of Knights-lle. This shaft was visited three times. On March 25th it was found that the air was not split so as to afford sufficient air to properly ventilate the mine. After notifying the Superintendent of the changes necessary, I gave him a limited time to do the work. On returning at the expiration of the alloted time, I found the mine in good condition.

#### No. 6 Mine.

Owned by the Brazil Block Coal Company. Located three miles north of Brazil. It was visited twice. On account of the probable falling in of the entry in bottom vein leading to the drop shaft in the top vein, I asked the company to sink another escape shaft, which they did. This shaft is pretty well worked out, and will be abandoned about July 1.

### No. 7 Mine.

Owned by B. B. Coal Company. Located two miles north of Brazil. Was worked out and abandoned February 18, 1893.

## No. 8 Mine.

Owned by B. B. Coal Company. Located one mile north of Perth. This mine was visited twice. On my first visit I asked the company to sink an additional air-shaft on northwestern part of territory. On returning I found the company had put down a slope north of shaft, which is intended more for a place of ingress and egress for the men than for ventilation, as the company had put in a trail-rope to haul the coal. The general condition of this mine, however, was fair, although there is a large territory excavated, and in several places the water on the road is nearly a foot deep.

## No. 9 Mine.

Owned by B. B. Coal Company. Located four miles southeast of Knightsville. This mine was visited twice. On my last visit I found they had opened the top vein that had been abandoned for years and were working thirty-six men in it. The coal being worked is but a small strip, and will not last longer than six months. I asked for a stairway to be put in air-shaft from the bottom to the top vein, and air-shaft enlarged. The bank boss promised to make the changes desired at once.

## No. 10 Mine.

Owned by Brazil Block Coal Company. Located one mile east of No. 8 mine. This mine was visited twice, but was only inspected once, as it was not in operation at the time of my last visit. The general condition of mine, when inspected, was good.

# Crawford No. 2 Mine.

This mine is owned by the Crawford Coal Company, and is located one mile northwest of Harmony. On my last visit to this mine I found two men working in what I considered a very dangerous place on main west entry. I requested the boss to give them another place, which was done.

The men were all working on pillars. The mine is worked out and abandoned now.

### No. 3 Mine.

Owned by the Crawford Coal Company. Located three miles south of Harmony, is worked out and abandoned.

## No. 4 Mine.

Owned by the Crawford Coal Company. Located two miles north of Brazil. This mine was visited twice. The general condition of the mine was good.

### No. 5 Mine.

Owned by the Crawford Coal Company. Located four miles south of Brazil. This was visited twice. On my first visit I asked for certain changes which were not made, and I found it necessary to file affidavits to compel them to comply with the law. On my second visit I found the mine in very good condition. I asked for an additional split in the air shaft and it was cheerfully made.

### No. 6 Mine.

Owned by the Crawford Coal Company. Located four miles south of Brazil. This mine is worked out and abandoned.

#### Columbia Mine.

Owned by Zeller & Sigler. Located one mile southwest of Knights-ville. This mine was visited twice. Since my last report two tunnels have been driven from the bottom to the top vein. Both are on the east side of the shaft. On my last visit I ordered the main entry in the tunnel to be thoroughly timbered as the roof was very bad. Also one room in bottom vein sloped, on account of bad roof. In other respects the general condition of the mine is fair.

# America Beauty.

Owned by Zeller & Sigler. Located one mile east of Asheville. This mine was visited twice, and on both visits was found in good condition.

## Brier Hill Mine.

Owned by J. A. Zeller Coal Company. Located just south of Asheville. This is a new shaft. It is ninety feet deep. Coal J (or bottom

vein) is being worked. The coal is about three feet six inches thick. The mine is ventilated by fan. During the summer an escape shaft was put down. The general condition of the mine is good.

# Big Four Mine.

Owned by the Clay County Coal Company. Located one-half mile north of Lodi. This is a new shaft. It is 132 feet deep. Coal I is being worked. The coal is about four feet six inches thick. It is ventilated by fan, and was in good condition when last visited.

#### New Nickel Plate Mine.

Owned by the Jackson Coal and Mining Company. Located one mile south of Benwood. At the time of my last visit to this mine they had just sunk a shaft to the bottom vein. The general condition of the mine was good, except a needed split in the air in the west side of the top vein. This change the bank boss promised to make at once.

## Brazil Shaft.

Owned by the Jackson Coal and Mining Company. Located two miles northeast of Brazil. This is a new shaft. It is eighty-five feet deep. Three veins of coal are being operated, and the coal averages about four feet. The mine is ventilated by fans. At the time of my last visit to this mine they had not completed the work of covering cages, neither had they light at the bottom of shaft in the different veins. They also needed gates on top landing and an indicator on the engine. Also a bulletin board for timbers. The boss promised to make the improvements needed without delay, but the mine was stopped a short time afterwards. I am, therefore, unable to tell what changes were completed.

# Newburg Mine No. 2.

Owned by the Gartsherie Coal Company, located one mile west of Turner, was visited twice. At the time of my last visit I stopped three men that were working on the second south entry, and asked the company to drive an air course and bring the air up to where the men were then working. This they very readily agreed to do.

#### Somers Mine.

Owned by J. Somers. Located one mile north of Staunton, was visited twice. Since my last report a slope was put down and is now in use for an escape. The general condition of the mine is good.

#### Ehrlich Mine.

Owned by Chris. Ehrlich (successor to P. Ehrlich & Co.), was visited twice, and although the mine was badly cut up, the general condition so far as health and safety was concerned was good.

## Nellie Mine.

Owned by the Otter Creek Coal Company. Located one mile south of Brazil, was visited twice, and though many improvements were made between my first and second visits, still there was not enough air on the west side of the mine. I asked that another current of air be sent to the west side of the mine. This the bank boss agreed to do at once.

#### Fair View Mine.

Owned by the Otter Creek Coal Company. Located four miles northwest of Brazil. This is a new shaft. Two veins of coal are being operated. They are the top and bottom veins, or coal I and J. Coal I averages over four feet, while coal J averages about three feet six inches. This shaft is 100 feet deep. It is ventilated by fan. At my request an escape shaft was put down, and at the time of my last visit it was in good condition.

#### Gartside Mine.

Owned by Watson, Little & Co. Located one mile north of Knightsville. This mine was visited twice and found in good condition.

#### Eureka Mine No. 1.

Owned by the Eureka Block Coal Company. Located one-half mile east of Carbon. This mine was visited twice, and many changes required to be made in directing the air currents. At the time of my last visit the mine was not in operation, but seemed to be in good condition.

## Eureka Mine No. 2.

Owned by the Eureka Block Coal Company. Located just north of Mine No. 1. It is a new shaft. It is 110 feet deep. Coal seams I and J are being worked. The mine is ventilated by fans. The average height of the coal is near four feet. They expect to connect with Mine No. 1 in a short time, and thus make an escape shaft.

#### World's Fair Mine.

Owned by the D. H. Davis Coal Company. Located one mile north of Brazil. This mine was visited twice and found in good condition both times.

## Excelsior Mine No. 1.

Owned by Christ. Ehrlich, successor to the Hoosier Coal Company. This shaft had a big cave-in from the surface. At the time of my last visit the mine was pretty well cleaned up, and was at that time in good condition. An escape shaft was sunk for the benefit of those who work in the top vein.

## Excelsior Mine No. 2.

Owned by Christ. Ehrlich. This is a small drift, ventilated by small furnace. It was opened the latter part of last year. There is but a small territory to excavate here, of what is called a rider vein, and it will be worked out and abandoned in 1894.

#### Pratt Mine.

Owned by the Coal Bluff Company. Located one mile west of Perth; was visited twice and found in good condition.

#### Anchor Mine.

Owned by the Coal Bluff Company. Located one mile southeast of Perth; was visited twice, but inspected only once, as the boilers were being cleaned at the time of one of my visits, and I did not go down into the mine. I found the mine in good condition.

#### Louise Mine.

Owned by Weaver, Getz & Co. This mine was visited several times, and a request made to have the water running down the escape shaft prevented from falling on persons ascending or descending the shaft. The company failed to do this work in a reasonable time, and were therefore prosecuted. Finally the work was done. The mine in other respects was in fair condition when last visited.

## Harrison Mine No. 1.

Owned by the Indiana & Chicago Block Coal Company. Located four miles northeast of Clay City; was worked out and abandoned about August 1.

#### Harrison Mine No. 2.

Owned by the Chicago & Indiana Block Coal Company. Located just west of Mine No. 1. During the year a splendid air and escape shaft has been put down, and at the time of my last visit the mine was in good condition.

## Diamond Mine.

Owned by the Diamond Coal Company. Located just a short distance northwest of Clay City. This shaft is worked out and abandoned.

#### Brier Hill Mine.

Owned by the Morrier Coal Company. Located one mile northwest of Clay City. This mine was visited several times and several changes required.

#### PARKE COUNTY.

#### Cox Mine No. 3.

Owned by the Brazil Block Coal Company. Located at Coxville. This mine was visited several times. On November 20th I ordered an additional split of air for the south side of the mine and several breakthroughs filled up. In other respects the mine was in good condition.

#### Otter Creek Mine.

Owned by the Brazil Block Coal Company. Located two miles northeast of Carbon. This mine was visited twice, and found in splendid condition.

#### No. 6 Mine.

Owned by the Parke County Coal Company. Located one mile north-west of Rosedale. This mine was visited twice. Its general condition is good. On the west side of the mine the company has put in a tail rope system. It is working satisfactorily, and there is some talk among other operators in this county of putting in a similar system of hauling coal and doing away with mules.

#### No. 7 Mine.

Owned by the Parke County Coal Company. Located one mile southeast of Minschell. This mine was visited twice, but owing to the fact that it was not in operation on either visit, I did not inspect it.

## No. 8 Mine.

Owned by the Parke County Coal Company. Located one mile and a quarter southwest of Coxville. This mine was visited twice. On one occasion I found boys under 14 years of age employed in the mine. They were told to remain at home after that date until they are 14 years old. The general condition of the mine was good.

#### No. 9 Mine.

Owned by the Parke County Coal Company. Located one-half mile south of Coxville. This mine was visited three times. On November 22d I found that an additional split of air was necessary for the south side of the mine. I asked the bank boss to do the work within ten days; also, to clean the dirt out of the man-way. At the expiration of the ten days I returned and found things in good condition. On May 1, 1893, this company put in a tail-rope haulage system, and it is working very satisfactorily.

## New Kentucky Mine No. 1.

Owned by New Kentucky Coal Company. Located at Clinton Locks. This mine was visited twice. I found several boys here, who were ordered out of the mine. The company were erecting a small fan at the bottom of down shaft. I suggested that work on this fan be stopped and a larger fan be erected on the escape shaft. This the superintendent refused to do, holding that the small fan in course of erection would supply sufficient air for present need. I do not deny the truthfulness of his position, but hold that within a short time additional facilities for ventilation at this mine will have to be made if the company expect to materially increase the number of persons employed.

# New Kentucky Mine No. 2.

Owned by the New Kentucky Coal Company. Located one-half mile southwest of mine No. 1. This is a new shaft 149 feet deep. The coal is bituminous coal six feet thick. The mine is ventilated by fan. At my request they began sinking an escape shaft, which I presume is completed ere this. The condition of mine was good.

#### Mecca Mine No. 1.

Owned by Mecca Mining Company. Located one-half mile east of Mecca. This mine was visited several times during the year. On my

last visit I requested an over cast to be made so as to split the air current at the sixth south entry. When this work is done I think the general condition of the mine will be good. Some boys were employed in this mine that were under fourteen years of age whom I ordered out of the mine.

#### No. 2 Mine.

Owned by the Mecca Mining Company. Located one mile south of mine No. 1. This mine was sunk several years ago and abandoned on the presumption that there was no coal there. In August, of this year, however, the mine was cleaned up and some entries started which in a short time struck good coal. This shaft is 153 feet deep. The mine is ventilated by fan. The coal is about four feet thick and of good bituminous quality, and seems at this time to have a good future before it. At the time of my visit they needed safety catches on the cages and an indicator on the engine. Also an escape shaft. The bank boss promised that these improvements would be made at the earliest possible moment.

## Crawford Mine No. 1.

Owned by the Crawford Coal Company. Located two miles northeast of Carbon. It is a shaft which is thirty feet deep to the bottom vein. This coal averages about four feet in thickness. This mine is ventilated by a fan, which produces 34.340 cubic feet of air per minute, 22.020 feet going on the north side of mine, where forty men and two mules are at work, and 12.320 feet on the south side, where forty men and two mules work. This mine was put down September 1. There is a manway here which is in good shape. The only thing I object to is a lack of doors and brattice, which the boss agreed to fix at once. The mine is well laid off, and when the above work is done it will be in good condition. They also have two entries driven into the top vein, where eight men are now at work. This drift is ventilated by a separate fan from the one that ventilates the bottom vein. There are no rooms nor cross entries turned off of those entries, as the roof does not justify it at this time. It is looking better now, however, and it will be but a short time before enough men will be employed to bring this drift under the mining laws.

# Superior Mine.

Owned by the Superior Coal Company. Located one and one-half miles east of Cassville. This is a new shaft, 106 feet deep. It is ventilated by a fan. The coal averages four feet thick. The mine was visited twice. At the time of my last visit stairs were needed in the escape

shaft, also several places need additional break-throughs and some breaks already made needed filling up. They also need one split in the air current on each side of the mine. After talking to Superintendent Zeller I received assurances that this work would be done at once.

#### McIntosh Mine.

Owned by J. McIntosh & Co. Located one and one-half miles east of Cassville. This is a new shaft 100 feet deep. It is ventilated by a fan. It was visited twice. On my last visit I left orders to have the breakthroughs closed and made air tight, also to put a new cover on the north cage. At my request the company are putting down an escape shaft, which will be finished in a short time.

#### VERMILLION COUNTY.

#### Norton Creek Mine No. 2.

Owned by the Norton Creek Coal Company. This mine has been operated for several years and will be abandoned in a short time. The company has put down a shaft at the head of the works in this mine and expects to take all coal that now goes out of this slope and out of new shaft. This mine was visited twice, but owing to the fact that the company had gone into the hands of a receiver and was idle, I did not inspect it at the time of my last visit.

#### Norton Creek Mine No. 3.

Owned by Norton Creek Coal Company. Located one mile west of Clinton. This mine was visited twice. A third split in the air needed. I ordered an overcast made at the sixth south entry, also a cover on the north cage, and safety catches adjusted. Also gates on top of the shaft on the north side. The bank boss promised to have this work done at once.

## Anderson Mine No. 1.

Owned by the Hazel Creek Coal Company. Located one mile northwest of Clinton. On account of the mine not being in operation all the year, it was only visited once, at which time I asked the company to close the mouth of all abandoned entries and make them air tight, so as to shut off noxious gases generated therein. Also to take down the loose draw slate between the fourth and fifth south entries. When this work is done I believe the general condition of this mine will be very good.

#### Anderson Mine No. 2.

Owned by the Hazel Creek Coal Company. Located one mile west of Clinton. This mine was found to lack a split in the air current, and on account of the company having failed to provide the same after they had been notified to do so, I filed an affidavit against the bank boss. The company plead guilty and he was fined. In all other respects the condition of the mine was good.

# Thompson Hill Mine.

Owned by the Thompson Hill Company. Located one mile northwest of Clinton. This mine was visited twice. On my first visit objections were made to the amount of air in circulation; also, to lack of split in the air volume. Orders were given to change this, and on returning a second time I found this work almost completed. When the work there under way is finished, I think the condition of the mine will be good.

### VIGO COUNTY.

## Hercules Mine.

Owned by the Coal Bluff Coal Company. Located just west of Fontanet. This mine was visited twice and found in fair condition. The mine is pretty well worked out. Nearly all of the men now at work are drawing pillars.

#### Star Mine.

Owned by the Coal Bluff Coal Company. Located one-half mile south of Fontanet. This mine was visited three times and found in fair condition.

# Victor Mine,

Owned by the Coal Bluff Coal Company. Located one mile southwest of Coal Bluff. This mine was visited twice. On my first visit an escape shaft was the only thing lacking to make the condition of the mine good. The second visit was made by the Assistant Inspector. In his report to me he does not mention the escape shaft. I therefore presume my request was complied with, and the mine is up to the requirements of the law.

#### Diamond Mine.

Owned by the Coal Bluff Coal Company. Located one mile south of Coal Bluff. I visited this mine twice during the year, but as it was idle at the time of such visits, I did not inspect it. Later it was visited by the Assistant Inspector and he reports the condition to be good.

## Peerless Mine.

Owned by the Coal Bluff Coal Company. Located one mile north of Coal Bluff. This mine was visited twice. At the time of my first visit a very extensive squeeze was affecting the south side of the mine, and there was therefore only room for a few men on the north side of the mine, which was in good condition. On my second visit over eighty men were at work and a division in the air current was badly needed, which the company were then working upon. When this is done the condition of the mine will be good.

## Seelyville Mine.

Owned by Julius Ehrlich, successor to P. Ehrlich & Co. Located one-half mile south of Seelyville. This mine was visited twice and found in good condition.

#### Grant Mine.

Owned by the Grant Coal and Mining Company. Located just east of the town of Grant. This mine has undergone several changes during the year, the company having erected a new pump building, new engine house, new engine and air compressor, with which the Ingersoll Mining Machines are operated. I had some trouble with this company during the year, caused by a failure on their part to weigh coal before it was screened. I filed an affidavit against them. When the case came for trial the company plead guilty and were fined. At the time of my last visit the general condition of the mine was good.

#### OWEN COUNTY.

#### Lancaster Mine No. 3.

Owned by the Lancaster Block Coal Company. Located four miles northeast of Clay City. This mine will be worked out and abandoned about March 1, 1894.

#### Lancashire Mine.

Owned by the Erman Coal Company, successor to J. Hyette. Located just west of Coal City. This mine was visited twice and found in good condition. It is not operated very extensively. The coal is low and the mine is not likely to last long.

Before giving tabulated statement I deem it proper to say that I. McIntosh & Co.'s new mine is not given or considered in any of the tables given. Neither is the Parke County Coal Company's new mine No. 10, in Parke County.

MONTHLY REPORT OF MINES IN CLAY COUNTY, IND., FOR JANUARY, 1893.

NAME AND ADDRESS OF COM- PANY.	Name of Mine.	Number of Persons Employed Inside.	Number of Persons Employed Outside.	Number of Mules or Horses Used in Mine.	Number of Days Worked in Month.	Number Cubic Feet of Air Circulating in Mineper Minute.
Brazil Block Coal Co., Brazil Crawford Coal Co., Brazil McIntosh Coal Co., Center Point Eureks Block Coal Co., Carbon Hoosier Coal Co., Brazil Weaver, Getz & Co., Center Point Hoosier Coal Co., Brazil Weaver, Getz & Co., Center Point P. Ehrlich & Co., Newburg Joseph Somers, Staunton Brint Hill Block Coal Co., Clay City Chicago & Ind. Bl'k Coal Co., T. Haute. Coal Bluff Co., Terre Haute Coal Bluff Co., Terre Haute	Gartsherre— No. 1 No. 2 No. 3 No. 4 No. 6 No. 7 No. 8 No. 9 No. 10 No. 3 No. 4 No. 5 No. 6 Columbia Am Beauty Nellie Fairview Newburg No. 2 World's Fair Gartside N. Nickel Plate Chicago Church Hill No. 1 No. 1 No. 1 No. 1 Hoosier Louise Newburg San Pedro. Briar Hill Diamond No. 1 No. 2 Pratt Anchor	60 44 58 160 48 199 125 58 32 64 45 105 105 55 70 200 137 104 40 13 15 26 60 109 109 109 109 109 109 109 109 109 10	5 5 4 4 6 6 7 7 7 5 5 6 4 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	6 4 4 5 7 7 4 5 188 10 9 9 7 3 3 3 3 2 2 6 4 6 1 5 5 5 4 2 2 4 7 7 10 2 9 5	22 24 24 24 24 24 24 24 24 24 24 24 24 2	7,192 10,000 10,000 22,000 85,000 10,000 38,760 20,000 16,030 23,400 16,750 8,550 22,500 15,500 22,750 31,700 20,000 15,600 9,000 11,500 14,200 13,500 14,200 13,500 23,200 8,000 8,000 23,200 8,000 23,200 8,000 23,200 23,200 23,200 23,200 23,200 23,200 23,200 23,200 23,200 23,200 23,200 23,200 23,200 23,200 23,200 23,200 23,200 23,200 23,200

MONTHLY REPORT OF MINES IN CLAY COUNTY, IND., FOR FEBRUARY, 1893.

NAME AND ADDRESS OF COM- PANY.	Name of Mine.	Number of Persons Employed Inside.	Number of Persons Employed Outside.	Number of Mules or Horses Used in Mine.	Number of Days Worked in Month.	Number Cubic Reet of Air Circulating in Mine per Minuto.
Brazil Block Coal Co., Brazil Crawford Coal Co., Brazil Drawford Coal Co., Brazil McIntosh Coal Co., Brazil Weaver, Getz & Co., Center Point Eureka Block Coal Co., Brazil Weaver, Getz & Co., Center Point Hoosier Coal Co., Brazil Weaver, Getz & Co., Center Point Hoosier Coal Co., Brazil Weaver, Getz & Co., Center Point Briar Hill Block Coal Co., Clay City Chicago & Ind. Bl'k Coal Co., T. Haute Coal Bluff Co., Terre Haute Coal Bluff Co., Terre Haute	Gartsherre— No. 1 No. 2 No. 3 No. 4 No. 6 No. 7 No. 8 No. 9 No. 10 No. 2 No. 3 No. 4 No. 6 No. 7 No. 6 No. 10 No. 2 No. 3 No. 4 No. 5 No. 6 Columbia Am Beauty Nellie Fairview No. 2 World's Fair Gartside N. Nickel Plate Chicago Church Hill No. 1 Hoosier Louise Newburg S. P. Briar Hill Diamond No. 1 No. 2 Pratt Anchor	422 422 422 422 422 422 422 533 422 160 180 880 880 105 103 103 166 770 176 60 125 63 83 422 43 85 59	55 54 11 4 4 4 13 8 8 8 5 6 6 6 7 5 5 6 5 12 2 16 6 6 8 8 5 6 6 4 7 7 5	53574 4218 10977333366 46115555 143319935442466 10295	18 22 20 20 20 21 10 22 22 22 22 21 21 22 22 22 22 22 22 22	6,192 10,000 10,000 10,000 22,000 10,000 38,500 10,000 16,000 10,7150 10,200 10,765 23,000 22,500 15,800 15,800 22,750 30,000 27,700 20,000 15,600 15,600 15,000 15,000 22,700 22,000 15,000 22,000 15,000

<sup>\*</sup> Abandoned.

## MONTHLY REPORT OF MINES IN CLAY COUNTY, IND., FOR MARCH, 1893.

NAME AND ADDRESS OF COM- PANY.	Name of Mine.	Number of Persons Employed Inside.	Number of Persons Employed Outside.	Number of Mules or Horses Used in Mine.	Number of Days Worked in Month.	Number Cubic Feet of Air Circulating in Mine per Minute.
Brazil Block Coal Co., Brazil Crawford Coal Co., Brazil Drawford Coal Co., Brazil Deller & Sigler, Knightsville Otter Creek Coal Co., Brazil Otter Creek Coal Co., Brazil D. H. Davis Coal Co., Brazil D. H. Davis Coal Co., Brazil Jackson Coal Co., Brazil Jackson Coal Co., Brazil Jackson Coal Co., Brazil Wickel Plate Coal Co., Brazil Jackson Coal Co., Brazil Jackson Coal Co., Brazil Jackson Coal Co., Brazil Jackson Coal Co., Brazil Ji Jackson Coal Co., Brazil Jackson Coal Co., Brazil Jackson Coal Co., Brazil Jackson Coal Co., Carbon Hoosier Coal Co., Brazil Jackson Coal Co., Carbon Hoosier Coal Co., Newburg J. Somers, Staunton Briar Hill Block Coal Co., Clay City Diamond Block Coal Co., Clay City Diamond Block Coal Co., Clay City Diamond Block Coal Co., T. Haute Chicago & Ind. B'lk Coal Co., T. Haute Coal Bluff Co., Terre Haute	Gartsherre- No. 1 No. 2 No. 3 No. 4 No. 6 No. 8 No. 9 No. 10 No. 2 No. 10 No. 2 No. 6 Columbia Am. Beauty Nolie Fairview No. 2 World's Fair Gartside Chicago No. 1 Hoosier Louise Louise Louise S. P Briar Hill Diamond No. 1 No. 2 Pratt Anchor	48 42 42 55 165 50 50 67 46 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	556 10 5 5 5 5 5 6 5 7 5 6 6 5 12 6 6 8 11 6 6 6 6 5	5457748811116333436361555542935425593995	22 20 22 22 22 23 18 24 25 25 19 22 27 17 18 29 16 6 19 19 18 29 19 18 29 19 19 19 19 19 22 22 23 19 19 19 19 19 19 19 19 19 19 19 19 19	10,000 10,000 10,000 22,000 10,000 28,000 25,000 16,500 17,362 9,100 22,500 23,500 23,500 22,750 30,000 24,570 20,000 15,800 22,750 30,000 21,570 20,000 18,000 23,500 18,000 23,500 21,570 20,000 23,500 21,570 20,000 23,500 21,570 20,000 23,500 21,500 23,500

<sup>\*</sup> Abandoned.

## MONTHLY REPORT OF MINES IN CLAY COUNTY, IND., FOR APRIL, 1893.

NAME AND ADDRESS OF COM- PANY.	NAME OF MING.	Number of Persons Employed Inside.	Number of Persons Employed Outside.	Number of Mules or Horses Used in Mine.	Number of Days Worked in Month.	Number Cubic Feet of Air Circulating in Mine per Minute.
Brazil Block Coal Co., Brazil Crawford Coal Co., Brazil Drawford Coal Co., Brazil Crawford Coal Co., Brazil Crawford Coal Co., Brazil D. H Davis Coal Co., Brazil D. H Davis Coal Co., Brazil Jackson Coal Co., Brazil Jackson Coal Co., Co., Conter Point P. Ehrlich & Co., Carbon Wenver, Getz & Co., Center Point P. Ehrlich & Co., Newburg J. Somers, Staunton Briar Hill Block Coal Co., Clay City Diamond Block Coal Co., Clay City Chicago & Ind. Bl'k Coal Co., T. Haute Coal Bluff Co., Terre Haute	No. 8 No. 9 No. 10 No. 2 No. 10 No. 2 No. 3 No. 4 No. 5 No. 6 Columbia Am Beauty Nellie Fairview No. 2: World's Fair Gartside N. Nickel Plate No. 1 Louise Newburg San Pedro Briar Hill Diamond No. 1 No. 2 Pratt	45 42 50 100 42 174 110 95 50 42 115 125 125 133 133 153 153 45 45 153 60 78	67 75 66 5 55 56 66 76 55 56 5 66 5 56 5 56 5	4334581443344366462544159542563595	20 77 22 16 22 15 12 24 24 24 24 24 18 19 19 19 19 19 19 21 21 21 21 21 21 21 21 21 21 21 21 21	10,000 10,000 20,000 22,000 7,000 37,185 24,000 16,380 24,000 17,000 17,000 18,300 19,800 22,750 30,000 19,800 22,750 30,000 18,000 23,100 6,000 7,800 23,500 22,500 18,500 22,500

<sup>\*</sup>Finished Apirl 7, 1893.

## MONTHLY REPORT OF MINES IN CLAY COUNTY, IND., FOR MAY, 1893.

NAME AND ADDRESS OF COM- PANY.	Name of Mine.	Number of Persons Employed Inside.	Number of Persons Employed Outside.	Number of Mules or Horses Used in Mine.	Number of Days Worked in Month.	Number Cubic Feet of Air Circulating in Mine per Minute.
Brazil Block Coal Co., Brazil Crawford Coal Co., Brazil McIer & Sigler, Knightsville Zeller & Sigler, Knightsville Otter Creek Coal Co., Brazil McIntosh Coal Co., Brazil McIntosh Coal Co., Brazil McIntosh Coal Co., Brazil Jackson Coal Co., Brazil Jackson Coal Co., Brazil Lurcka Block Coal Co., Carbon Weaver, Getz & Co., Center Point. C. Ehrlich & Co., Newburg. J. Somers, Staunton Briar Hijl Block Coal Co., Clay City. Diamond Block Coal Co., Clay City. Chicago & Ind. Bl'k Coal Co., Thaute Coal Bluff Co., Terre Haute Coal Bluff Co., Terre Haute	No. 2. Pratt.	42 55 36 310 777 89 99 61 43 86 30 115 95 102 80 156 151 90 445 52 22 40 40 23	564 885 55 56 6777 44 66 122 66 677 10 77 10 44 44	4 4 4 4 4 12 5 5 10 5 3 8 4 4 3 5 5 3 3 16 8 3 5 4 4 2 2 6 5 5 5 3	21 129 148 122 231 201 221 201 197 1134 167 24 25 100 181 181 181	10,000 20,000 7,000 30,000 18,000 18,000 19,750 8,200 13,000 8,400 22,250 22,750 30,000 23,450 15,000 20,400 9,700 31,000 6,000 7,400 22,000 22,000 12,000 22,500 22,000 12,000 23,500 22,000 12,000 23,500 22,000 10,400

MONTHLY REPORT OF MINES IN CLAY COUNTY, IND., FOR JUNE, 1893.

NAME AND ADDRESS OF COM- PANY.	NAME OF MINE.	Number of Persons Employed Inside.	Number of Persons Employed Outside.	Number of Mules or Horses Used in Mine.	Number of Days Worked in Month.	Number Cubic Feet of Air Circulating in Mine Per Minute.
Brazil Block Coal Co., Brazil Crawford Coal Co., Brazil Zeller & Sigler, Knightsville. Zeller & Sigler, Knightsville Zeller & Sigler, Knightsville Delter Creek Coal Co., Brazil Otter Creek Coal Co., Brazil Dier Creek Coal Co., Brazil Jeneka Coal Co., Brazil Jeneka Coal Co., Brazil Jackson Coal Co., Brazil Jackson Coal Co., Carbon Weaver, Getz & Co., Center Point C. Ehrlich, Newburg J. Somers. Staunton Briar Hill Block Coal Co., Clay City Chicago & Ind. Bl'k Coal Co., T. Haute. Coal Bluff Co., Terre Haute Coal Bluff Co., Terre Haute	Newburg San Pedro Briar Hill Diamond	365 452 110 774 775 82 444 600 100 100 100 100 100 100 100 100 100	5648585556666726215601770.70775532	4 4 4 12 5 10 6 5 3 3 5 3 6 4 3 3 3 5 . 4 4 2 6 5 6 5 3 3 1	222 119 122 119 166 20 113 114 117 115 116 119 119 119 119 119 119 119 119 119	10,000 20,000 7,000 30,000 18,000 16,000 24,500 117,000 23,000 23,000 22,750 14,000 30,000 20,690 15,000 16,800 7,400 22,500 22,500 22,500 22,500 22,500 22,500 22,500 22,500 22,500 22,500 22,500 22,500 22,500 22,500 22,500

<sup>\*</sup>Idle entire month.

# MONTHLY REPORT OF MINES IN CLAY COUNTY, IND., FOR JULY, 1893.

NAME AND ADDRESS OF COM- PANY.	NAME OF MINE.	Number of Persons Employed Inside.	Number of Persons Employed Outside.	Number of Mules or Horses Used in Mine.	Number of Days Worked in Month.	Number of Cubic Feet of Air Circulating in Mine Per Minute.
Brazil Block Coal Co., Brazil Crawford Coal Co., Brazil Jeller & Sigler, Knightsville Zeller & Sigler, Knightsville Deller & Sigler, Knightsville Deller & Coal Co., Brazil J. H. Zeller & Co., Knightsville D. H. Davis & Co., Co., Carbon Weaver, Getz & Co., Center Point C. Ehrlich & Co., Newburg J. Somers, Staunton Briar Hill Block Coal Co., Clay City Diamond Block Coal Co., Clay City Diamond Block Coal Co., Clay City C. and I. Block Coal Co., Terre Haute Coal Bluff Co., Terre Haute	Gartsherre— No. 3 No. 4 No. 6 No. 6 No. 8 No. 9 No. 10 No. 3 No. 3 No. 4 No. 5 No. 6 Columbia Am. Beauty Nellie Fairview No. 2 Briar Hill World's Fair Gartside N. Nickel Plate N. Nickel Plate No. 1 *Louise Newburg San Pedro Briar Hill Diamond No. 1 No. 2 Pratt Anchor	34 203 40 120 90 55 106 45 48 413 42 120 120 73 30 80 80 133 141 10 10 46 46 48 48 48 14 46 48 14 48 14 48 14 48 14 48 14 48 48 48 48 48 48 48 48 48 48 48 48 48	5 10 4 8 8 6 7 5 5 5 5 5 2 2 6 6 10 7 7 7 10 6 4 2 2	4848985335364235 .4459 .62743542	18 24 12 15 9 20 16 13 17 20 17 20 18 14 21 11 24 24 21 21 21 21 21 21 21 21 21 21 21 21 21	10,000 24,070 7,000 35,000 25,000 20,000 24,000 18,600 17,000 22,000 23,000 17,160 22,750 30,000 20,570 15,000 21,600 21,600 22,000 23,000 12,000 23,000 23,000 24,000 23,000 24,000 23,000 24,000 23,000 23,000 23,000 23,000 23,000 23,000 23,000 23,000 23,000 23,000 23,000

<sup>\*</sup> Idle entire month.

<sup>†</sup> Eight hours.

## MONTHLY REPORT OF MINES IN CLAY COUNTY, IND., FOR AUGUST, 1893.

NAME AND ADDRESS OF COM- PANY.	NAME OF MINE.	Number of Persons Employed Inside.	Number of Persons Employed Outside.	Number of Mules or Horses Used in Mine.	Number of Days Worked in Month.	Number Cubic Feet of Air Circulating in Mine per Minute.
Brazil Block Coal Co., Brazil Crawford Coal Co., Brazil Loller & Sigler, Knightsville Zeller & Sigler, Knightsville Zeller & Sigler, Knightsville Detter Creek Coal Co., Brazil Louter Creek Coal Co., Knightsville Detter Creek Coal Co., Knightsville Detter Creek Coal Co., Knightsville Detter Creek Coal Co., Chazil Louteka Coal Co., Carbon Weaver, Getz & Co., Center Point C. Ehrlich & Co., Newburg J. Somers. Staunton Briar Hill Block Coal Co., Clay City Diamond Block Coal Co., Clay City Diamond Block Coal Co., Clay City Chicago & Ind. Bl'k Coal Co., T. Haute Clay County Block Coal Co., Brazil Chicago & Ind. Bl'k Coal Co., T. Haute Coal Bluff Co., Terre Haute Coal Bluff Co., Terre Haute	Gartsherre— No. 3 No. 4 No. 6 No. 8 No. 9 No. 10 No. 2 No. 3 No. 5 No. 5 Celumbia Am. Benuty Nellie Fairview No. 2 B. H World's Fair Gartside. New Mickel Plate No. 1 Louise* Newburg S. P Briar Hill Diamond No. 1 Cladstone No. 2 Pratt Anchor	24 206 48 166 95 74 35 770 141 38 110 105 84 45 76 45 93 141 120 115 50 48 48 54 62 16 70 88 48 54 64 64 64 64 64 64 64 64 64 64 64 64 64	4 165 8 6 7 5 4 5 7 7 5 6 6 12 5 7 7 10 8 9 7 7 6 7 3	4961398324553957455134488424433584	166 24 13 35 12 25 25 20 22 25 26 18 3 26 12 12 12 12 12 12 12 12 12 12 12 12 12	10,000 24,500 10,000 36,897 25,000 20,000 20,000 118,000 6,200 23,000 23,000 22,750 12,000 22,750 12,000 12,000 22,750 12,000 30,000 22,750 36,000 25,400 36,000 25

<sup>\*</sup> Idle entire month.

MONTHLY REPORT OF MINES IN CLAY COUNTY, IND., FOR SEPTEMBER, 1893.

NAME AND ADDRESS OF COM- PANY.	NAME OF MINE.	Number of Persons Employed Inside.	Number of Persons Employed Outside.	Number of Mules or Horses Used in Mine.	Number of Days Worked in Month.	Number Cubic Feet of Air Circulating in Mineper Minute.
Brazil Block Coal Co., Brazil Crawford Coal Co., Brazil Lought & Sigler, Knightsville Zeller & Sigler, Knightsville Zeller & Sigler, Knightsville Deler & Sigler, Knightsville Deler & Sigler, Knightsville Deler & Coal Co., Brazil Lought State Coal Co., Brazil Lought Block Coal Co., Carbon C. Ehrlich & Co., Perth C. Ehrlich & Co., Perth C. Ehrlich & Co., Terth C. Ehrlich & Co., Turner J. Somers, Statuton Briar Hill Block Coal Co., Clay City Chicago & Ind. Bl'k Coal Co., T. Haute Clay County Bl'k Coal Co., T. Haute Coal Bluff Coal Co., Terre Haute Coal Bluff Coal Co., Terre Haute	Gartsherre— No. 3 No. 4 No. 6 No. 8 No. 9 No. 10 No. 2* No. 4 No. 6 No. 5 No. 6 Columbia Am. Beauty Nellie Fairview No. 2 Briar Hill World's Fair Gartside N. Nickel Plate Brazil No. 1 No	36 205 43 125 105 35 34 44 36 96 119 30 110 106 60 93 137 128 52 113 43 25 51 44 48 52 51 64 64 64 64 64 64 64 64 64 64 64 64 64	50 14 88 66 99 44 45 77 55 77 10 77 14 11 15 11 11 12 13 14 15 15 16 16 17 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	3866 12294 422255339477455 1455 1455 1455 1455 1455 1455 145	26 21 24 13 19 19 21 17 24 21 14 14 14 14 14 14 14 14 14 14 14 14 14	20,000 24,000 9,600 35,000 16,740 18,000 13,000 18,000 22,350 22,750 14,760 22,750 15,000 23,850 100,000 17,500 8,880 30,000 23,500 12,500 8,000 12,500 8,000 12,50

<sup>\*</sup> Worked out and abandoned. † Idle entire month. ‡ Worked out and abandoned.

MONTHLY REPORT OF MINES IN CLAY COUNTY, IND., FOR OCTOBER, 1893.

NAME AND ADDRESS OF COM- PANY.	NAME OF MINE.	Number of Persons Employed Inside.	Number of Persons Employed Outside.	Number of Mules or Horses Used in Mine.	Number of Days Worked in Month.	Number Cubic Feet of Air Circulating in Mine per Minute.
Brazil Block Coal Co., Brazil Crawford Coal Co., Brazil Crawford Coal Co., Brazil Crawford Coal Co., Brazil Crawford Coal Co., Brazil Zeller & Sigler, Knightsville Otter Creck Coal Co., Brazil Zeller & Sigler, Knightsville Otter Creck Coal Co., Brazil J. H. Zelier Coal Co., Brazil Eureka Block Coal Co., Carbon Jackson Coal Co., Brazil Eureka Block Coal Co., Carbon C. Ebrlich & Co., Perth Weaver, Getz & Co., Center Point C. Ebrlich & Co., Perth Weaver, Getz & Co., Center Point J. Somers, Staunton Briar Hill Block Coal Co., Clay City Diamond Block Coal Co., Clay City Clay County Block Coal Co., Clay City Clay County Block Coal Co., T. Haute Coal Bluff Co., Terre Haute	Gartsherre— No. 1 No. 3 No. 4 No. 6 No. 8 No. 9 No. 10 No. 3 No. 10 No. 10 No. 3 No. 4 No. 5 Columbia Am. Beauty Nellie Fairview No. 2 Briar Hill World's Fair Gartside No. 2 Brazil No. 1 No. 2 *Louise New burg S. P. Briar Hill Diamond Giad No. 2 Pratt Anchor	14 50 5222 66 179 99 9 24 115 110 120 136 16 138 16 16 46 46 46 49 40 40 40 40 40 40 40 40 40 40	4 5 5 7 7 7 8 4 6 6 7 10 8 3 5 9 2 9 7 9 7 7 5 6 7 3	2 4 9 6 6 12 7 7 1 1 1 5 6 8 8 4 4 6 4 5 5 2 5 14 5	122 223 176 11 12 19 20 20 12 21 21 10 10 12 11 12 11 11 11 11 11 11 11 11 11 11	10,000 15,000 24,730 10,600 36,000 19,000 19,000 12,900 11,600 22,000 11,600 22,400 22,475 10,000 23,940 100,000 33,000 14,500 9,400 9,400 12,500 4,000 12,500 4,000 23,040 24,000 8,000 7,000 23,040 24,000 8,000 7,000 23,040 24,000 8,000 7,000 23,040 24,000 8,900

<sup>\*</sup> Idle entire month.

## MONTHLY REPORT OF MINES IN CLAY COUNTY, IND., FOR NOVEMBER, 1893.

NAME AND ADDRESS OF COM- PANY.	NAME OF MINE.	Number of Persons Employed Inside.	Number of Persons Employed Outside.	Number of Mules or Horses Used in Mine.	Number of Days Worked in Month.	Number Cubic Feet of Air Circulating in Mine per Minute.
Brazil Block Coal Co., Brazil Crawford Coal Co., Brazil Crawford Coal Co., Brazil Crawford Coal Co., Brazil Zeller & Sigler, Knightsville Geler & Sigler, Knightsville Otter Greek Coal Co., Brazil J. H. Zeller & Co., Brazil J. H. Zeller & Co., Brazil J. H. Zeller & Co., Knightsville. Watson, Little & Co., Brazil Buckson Coal Co., Brazil Eureka Block Coal Co., Carbon Jackson Coal Co., Brazil Eureka Block Coal Co., Carbon C. Ehrlich & Co., Perth Weaver, Getz & Co., Center Point P. Ehrlich & Co., Perth Weaver, Getz & Co., Clay City Diamond Block Coal Co., Clay City Clay County Block Coal Co., Clay City Clay County Block Coal Co., Thatel Coal Bluff Co., Terre Haute Coal Bluff Co., Terre Haute	Gartsherre— No. 1 No. 3 No. 4 No. 6 No. 8 No. 9 No. 10 No. 10 No. 5 No. 6 Columbia Am. Beauty Nellie Fairview Newburg No. 2 Briar Hill World's Fair Gartside No. 2 Brazil No. 1 No. 2 Louise Newburg San Pedro Briar Hill Diamond Gladstone No. 2 Pratt Anchor	14 197 53 183 184 9 9 80 158 105 105 100 145 146 46 46 46 43 43 43 43 43 43 45 45	452435557477262679855829559765863	231042225628435522556 .16144323774	17 166 13 9 9 9 9 9 14 8 15 10 11 11 11 11 11 11 11 11 11 11 11 11	10,000 15,000 12,218 9,000 22,218 9,000 20,000 13,660 18,500 22,250 22,250 22,250 22,250 22,750 16,000 19,300 10,000 5,000 11,400 10,200 34,000 12,500 12,500 12,500 12,500 12,500 12,500 12,500 12,500 12,500 12,500 12,500 12,500 23,500

#### MONTHLY REPORT OF MINES IN CLAY COUNTY, IND., FOR DECEMBER, 1893.

NAME AND ADDRESS OF COM- PANY.	NAME OF MINE.	Number of Persons Employed Inside.	Number of Persons Employed Outside.	Number of Mules or Horses Used in Mine.	Number of Days Worked in Month.	Number Cubic Feet of Air Circulating in Mine per Minute.
Brazil Block Coal Co., Brazil Grawford Coal Co., Brazil Crawford Coal Co., Brazil Crawford Coal Co., Brazil Crawford Coal Co., Brazil Crawford Coal Co., Brazil Zeller & Sigler, Knightsville Zeller & Sigler, Knightsville Zeller & Sigler, Knightsville Zeller & Coal Co., Brazil J. H. Zeller & Co., Knightsville D. H. Davis Coal Co., Knightsville Watson, Little & Co., Brazil J. H. Zeller & Co., Brazil Jackson Coal Co., Brazil Jackson Coal Co., Brazil Bureka Block Coal Co., Carbon Jackson Coal Co., Perth Weaver, Getz & Co., Center Point C. Ehrlich & Co., Perth Weaver, Getz & Co., Center Point C. Ehrlich & Co., Turner J. Somers, Staunton Briar Hill Block Coal Co., Clay City Diamond Block Coal Co., Clay City Clay County Block Coal Co., Brazil Chicago & Ind. Bl'k Coal Co., Brazil Chicago & Ind. Bl'k Coal Co., T. Haute Coal Bluff Co., Terre Haute	Gartsherre— No. 1 No. 2* No. 3 No. 4 No. 6 No. 8 No. 9 No. 10† No. 5 No. 10† No. 4 Am. Beauty Columbian Nellie Fairview Newburg, No. 2 Briar Hill World's Fair Gartside New Nickel Plate No. 2 Brazil No. 1 No. 1 No. 1 No. 1 No. 1 No. 1 No. 2 Louise Newburg San Pedro Briar Hill Diamond Gladstone No. 2 Pratt Anchor	16	4	2 3 10 4 12 4 4 8 8 3 5 5 5 2 2 5 5 1 1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	22 18 18 20 11 18 10 12 10 13 11 12 10 10 11 13 11 12 10 10 11 12 13 11 12 13 14 15 16 17 18 18 19 10 10 10 10 10 10 10 10 10 10	10,000  12,000 22,400 7,900 25,528 20,000  20,444 14,200 23,000 25,5100 23,100 20,15,100 20,15,100 20,100 10,000 10,000 10,000 10,000 14,300 36,000 14,300 36,000 12,500 12,500 23,000 12,500 23,000 24,500 24,500 8,700

<sup>\*</sup> Abandoned January 2, 1894.

# MONTHLY REPORT OF MINES IN VERMILLION COUNTY, IND., FOR JANUARY, 1893.

NAME AND ADDRESS OF COM- PANY.	NAME OF MINE.	Number of Persons Employed Inside.	Number of Persons Employed Outside.	Number of Mules or Horses Used in Mine.	Number of Days. Worked in Month.	Number Cubio Feet of Air Circulating in Mine per Minute.
Hazel Creek Coal Co., Clinton. Hazel Creek Coal Co., Clinton. Thompson Hill Mining Co., Clinton. Norton Creek Coal Co., Clinton.	Fern Hill	95 98 75	15 14 7	12 7 4	22 22 22 19	28,050 32,098 7,500

<sup>†</sup> Shut down.

# MONTHLY REPORT OF MINES IN VERMILLION COUNTY, IND., FOR FEBRUARY, 1893.

	1893.					
NAME AND ADDRESS OF COM- PANY.	NAME OF MINE.	Number of Persons Employed Inside.	Number of Persons Employed Outside.	Number of Mules or Horses Used in Mine.	Number of Days Worked in Month.	Number Cubic Feet of Air Circulating in Mine per Minute.
Hazel Creek Coal Co., Clinton	Hazel Creek Fern Hill Thompson Hill . No. 2	98 95 70	16 14 7	12 7 4	17 17 20 18	28,050 32,098 7,500
MONTHLY REPORT OF MINES IN	VERMILLION CO	OUNT	Y, INI	)., FOI	R MAF	RCH, 1893.
Hazel Creek Coal Co., Clinton. Hazel Creek Coal Co., Clinton. Thompson Hill Mining Co., Clinton. Norton Creek Coal Co., Clinton.	Hazel Creek Fern Hill Thompson Hill No.2.	90 92 65	15 14 7	12 7 4	14 12 13 21	28,060 32,098 7,500
MONTHLY REPORT OF MINES IN	VERMILLION CO	OUNT	Y, IN	D., F0	R API	RIL, 1893.
Hazel Creek Coal Co., Clinton Hazel Creek Coal Co., Clinton Thompson Hill Mining Co., Clinton Norton Creek Coal Co., Clinton	Hazel Creek Fern Hill Thompson Hill . No.2	50 125 80	10 12 20	12 8 5	3½ 10½ 20 15	120,000 141,000 8,500
MONTHLY REPORT OF MINES IN	VERMILLION C	OUNI	Y, IN	ID., F	OR M	AY, 1893.
Hazel Creek Coal Co., Clinton	Hazel Creek Fern Hill Thompson Hill . No. 2	185 81	3 11 15	10 6	15 12 18	56,600 8,500
MONTHLY REPORT OF MINES IN	VERMILLION C	ounr	Y, IN	D., F	dr ju	NE, 1893.
Hazel Creek Coal Co., Clinton	*Hazel Creek Fern Hill Thompson Hill No. 2	165 45	3 11 6	11 4	10 7 71	55,600 8,500
"Not in operation.						
MONTHLY REPORT OF MINES IN	VERMILLION C	OUNT	Y, IN	D., F	or ju	LY, 1893
Hazel Creek Coal Co., Clinton	*Hazel Creek Fern Hill Thompson Hill . No. 4	185 76	11 10	11 5	15 10 12	56,600 8,500

<sup>\*</sup> Not in operation.

MONTHLY REPORT	OF MINES	IN VERMILLION	COUNTY, IND	FOR AUGUST, 1893.

NAME AND ADDRESS OF COM- PANY.	NAME OF MINE.	Number of Persons Employed Inside.	Number of Persons Employed Outside.	Number of Mules or Horses Used in Mine.	Number of Days Worked in Month.	Number Cubic Feet of Air Circulating in Mine per Minute.
Hazel Creek Coal Co., Clinton	Fern Hill Thompson Hill .	197 80	15 10	 14 5	11 13	51,000 8,500

<sup>\*</sup> Not in operation.

# MONTHLY REPORT OF MINES IN VERMILLION COUNTY, IND., FOR SEPTEMBER, 1893.

<del></del>					
Hazel Creek Coal Co., Clinton Hazel Creek Coal Co., Clinton Thompson Hill Co., Clinton	Fern Hill	203 85 18 10	16 5	15 11	52,000 85,000

<sup>\*</sup> Not in operation.

# MONTHLY REPORT OF MINES IN VERMILLION COUNTY, IND., FOR OCTOBER, 1893.

Hazel Creek Coal Co., Clinton Hazel Creek Coal Co., Clinton Thompson Hill Co., Clinton Torrey Coal Co., Clinton	Fern Hill 20	75 10 13 18 12 10 15 15	14 16 5 5	15 14 14 15	48,000 52,000 8,500 17,800

# MONTHLY REPORT OF MINES IN VERMILLION COUNTY, IND., FOR NOVEMBER, 1893.

Hazel Creek Coal Co., Clinton, Ind	F. Hill	90	12	14	13	48,000
Hazel Creek Coal Co., Clinton, Ind		201	18	16	13	52,000
Thompson Hill Co., Clinton, Ind		65	8	5	5	8,500
Torrey Coal & Mining Co., Clinton, Ind		145	20	7	12	17,900

# MONTHLY REPORT OF MINES IN VERMILLION COUNTY, IND., FOR DECEMBER, 1893.

Hazel Creek Coal Co., Clinton, Ind Hazel Creek Coal Co., Clinton, Ind	Hazel Creek	91 203	12 18	14 16	14	48,000 52,000
Thompson Hill Co., Clinton, Ind Torrey Coal Co., Clinton, Ind			20	8	20	18,000

<sup>\*</sup> Not in operation.

## MONTHLY REPORT OF MINES IN VIGO COUNTY, IND., FOR JANUARY, 1893.

NAME AND ADDRESS OF COM- PANY.	NAME OF MINE.	Number of Persons Employed Inside.	Number of Persors Employed Outside.	Number of Mules or Horses Used in Mine.	Number of Days Worked in Mine.	Number Cubic Feet of Air Circulating in Mine per Minute.
Coal Bluff Coal Co., Terre Haute. Coal Bluff Coal Co., Terre Haute Coal Bluff Coal Co., Terre Haute Coal Bluff Coal Co., Terre Haute Heater Indiana Coal Co., Terre Haute P. Ehrlich & Co., Seelyville Grant Coal and Mining Co., Burnett	Star Diamond Victor Peerless Seelyville	114 85 85 25 55 60 100	17 9 5 3 5 8 10	14 8 4 2 3 5 6	21 22 17 22 21 21 21	47,500 34,000 12,700 21,000 16,000 20,000 25,000

## MONTHLY REPORT OF MINES IN VIGO COUNTY, IND., FOR FEBRUARY, 1893.

Coal Bluff Coal Co., Terre Haute	Hercules. Star Diamond Victor Peerless Seelyville Grant	112 88 82 29 62 60 100	16 8 5 4 5 8 10	14 8 4 2 3 5	23 184 264 22 19 21 23	
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# MONTHLY REPORT OF MINES IN VIGO COUNTY, IND., FOR MARCH, 1893.

Coal Bluff Coal Co., Terre Haute Coal Bluff Coal Co., Terre Haute Coal Bluff Coal Co., Terre Haute	Star Diamond Victor Peerless Seelyville	82 80 34	8 4 1 2 3 3 5 5	25 24 22 23 17 19 26	46,800 35,400 12,500 18,000 20,000 25,000
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## MONTHLY REPORT OF MINES IN VIGO COUNTY, IND., FOR APRIL, 1893.

Coal Bluff C al Co., Terre Haute Coal Bluff Coal Co., Terre Haute Western Indiana Coal Co., Terre Haute P. Ehrlich & Co., Seelyville Grant Coal Mining Co., Burnett.	Star Diamond Victor Peerless Seelyville	48 1	13 8 5 4 7 8 10	13 8 4 3 3 5 7	26 22 16 21 11 23 20	47,400 34,900 13,900 18,000 20,000 25,000
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# MONTHLY REPORT OF MINES IN VIGO COUNTY, IND., FOR MAY, 1893.

## MONTHLY REPORT OF MINES IN VIGO COUNTY, IND., FOR JUNE, 1893.

NAME AND ADDRESS OF COM- PANY.	NAME OF MINE.	Number of Persons Employed Inside.	Number of Persons Employed Outside.	Number of Mules or Horses Used in Mine.	Number of Days Worked in Month.	Number Cubic Feet Air of Ulrculuting in Mine per Micute.
Coal Bluff Coal Co., Terre Haute Coal Bluff Coal Co., Terre Haute	Star	125 103 90 53 36 53 56	13 7 7 6 7 7 11	13 8 4 3 2 5 5	23 23 21 19 8 16 23	47,500 2 <sup>2</sup> ,000 25,400 18,500 15,000 15,000 28,000

#### MONTHLY REPORT OF MINES IN VIGO COUNTY, IND., FOR JULY, 1893.

Coal Bluff Co., Terre Haute Western Indiana Coal Co., Terre Haute J. Ehrlich Coal Co., Seefyville. Grant Coal and Mining Co., Burnett	Diamond Victor Peerless Seelyville	110 105 90 55 34 48 51	10 7 7 6 7 7 10	11 8 4 3 2 5 5	18 18 19 16 11 13	45,000 24,000 24,900 18,000 15,000 28,000
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#### MONTHLY REPORT OF MINES IN VIGO COUNTY, IND., FOR AUGUST, 1893.

Coal Bluff Co., Terre Haute. Western Indiana Coal Co., Terre Haute J Ehrlich Coal Co., Seelyville. Grant Coal and Mining Co., Burnett.	Star	110 102 	: : :	12 11 4  5 6	18½ 15 12 	38,000 24,000 20,500 
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<sup>\*</sup> This mine operated in small way from August to January 1. † Not in operation this month.

## MONTHLY REPORT OF MINES IN VIGO COUNTY, IND., FOR SEPTEMBER, 1893.

Grant Coal and Mining Co., Burnett . Grant 70 10 8 17 35,	Coal Bluff Coal Co., Terre Haute J. Ehrlich Coal Co., Seelywille. Grant Coal and Mining Co., Burnett.	Star	98 12 105 7 100 6 53 7 70 10	12 24 11 22½ 4 18½ 5 8 8 17	38,500 5,000 35,000
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<sup>\*</sup> Not in operation in September; assumed control September 1.

#### MONTHLY REPORT OF MINES IN VIGO COUNTY, IND., FOR OCTOBER, 1893.

Coal Bluff Coal Co., Terre Haute J. Ehrlich Coal Co., Seelyville Grant Coal and Mining Co., Burnett	Hercules Star	102 12 105 7 98 6 45 4 52 6 70 10	12 23 11 25 4 23 2 15 5 8 8 17	39,000 23,700 21,000 21,200 18,000 40,000
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# MONTHLY REPORT OF MINES IN VIGO COUNTY, IND., FOR NOVEMBER, 1803.

NAME AND ADDRESS OF COM- PANY.	NAME OF MINE.	Number of Persons Employed Inside.	Number of Persons Employed Outside.	Number of Mules or Horses Used in Mine.	Number of Days Worked in Month,	Number Cubic Feet of Air Circulating in Mine per Minute.
Coal Bluff Coal Co., Terre Haute J. Ehrlich Coal Co., Seelyville Grant Coal and Mining Co., Burnett	Hercules Star Diamond Peerless Seelyville Grant	100 110 104 65 58 80	12 7 6 4 8 12	12 11 4 3 5 11	25 24½ 19 11 24 27	37,04 <b>0</b> 24,660 29,70 <b>0</b> 21,06 <b>0</b> 19,660 40,000
MONTHLY REPORT OF MINES IN	N VIGO COUNTY,	IND.	, For	DEC	ЕМВЕ	R, 1893.
Coal Bluff Coal Co., Terre Haute Coal Bluff Coal Co., Terre Haute Coal Bluff Coal Co., Terre Haute Coal Bluff Coal Co., Torre Haute J. Ehrlich Coal Co., Seelyville Grant Coal and Mining Co., Burnett	Hercules Star	104 110 97 80 60 80	12 7 6 4 8 12	12 11 4 4 5 12	24 23 20½ 20 16 22½	38,700 24,260 19,800 20,600 19,000 40,009
MONTHLY REPORT OF MINES IN	N PARKE COUNT	Y, IN	D., FC	R JA	NUAR	Y, 1893.
Brazil Block Coal Co., Brazil	Otter Creek Coxville No.3., No. 1. No. 2. Mecca M'ng Co. No. 6. No. 7. No. 8. No. 9.	52 140 94 24 59 103 45 40 75	5 11 17 10 5 30 4 6 10	3 10 7 1 1 4 13 5 3 8	20 23 21 <sup>‡</sup> 25 24 25 18 25 24 25 24	2,680 25,009 24,680 35,740 27,900 21,009 25,609
MONTHLY REPORT OF MINES IN	PARKE COUNTY	Y, INI	)., FO	R FE	BRUA	RY, 1898.
Brazil Block Coal Co., Brazil	Otter Creek Coxville No. 3. No. 1. No. 2. Meeca M'ng Co. No. 6. No. 7. No. 8. No. 9.	75 140 100 23 54 107 43 45 80	6 11 18 11 5 21 4 6 10	10 8 1 4 13 5 3 9	21 24 18½ 24 21 24 15¾ 22 21½	20,000 22,000 24,550 35,706 25,808 23,000 25,609
MONTHLY REPORT OF MINES I	N PARKE COUN	ry, I	VD., F	or m	ARCH	, 1893,
Brazil Block Coal Co., Brazil Brazil Block Coal Co. Brazil New Kentucky Coal Co., Clinton New Kentucky Coal Co., Clinton Mecca Mining Co., Rockville Parke County Coal Co., Rosedale	Otter Creek Coxville No. 3 No. 1 No. 2 Mecca M'ng Co No. 6 No. 7 No. 8 No. 9	80 140 85 43 63 109 45 48 85	7 10 17 12 5 21 4 6 10	4 11 7 2 5 13 5 4	22 23 21 25 17 26; 16; 26 22	20,000 25,500 30,600 24,580 34,9±6 27,000 22,400 25,300

6-GEOLOGY.

# MONTHLY REPORT OF MINES IN PARKE COUNTY, IND., FOR APRIL, 1893.

NAME AND ADDRESS OF COM- PANY.	NAME OF MINE.	Number of Persons Employed Inside.	Number of Persons Employed Outside.	Number of Mules or Horses Used in Mine.	Number of Dars Worked in Month.	Number Cubic Feet of Air Circulating in Mine per Minute.
Brazil Block Coal Co., Brazil Brazil Block Coal Co., Brazil New Kentucky Coal Co., Clinton New Kentucky Coal Co., Clinton Mecca Mining Co., Rockville Parke County Coal Co., Rosedale	Coxville No. 3 No. 1 No. 2 Mecca Min'g Co. No. 6 No. 7	86 36 77 60 52 112 47 50 87	5 8 16 8 5 21 4 7	326255569	9 25 18 221 8 221 8 231 231 221	22,000 10,600 20,009 30,000 21,000 35,000 28,000 22,600 26,000

#### MONTHLY REPORT OF MINES IN PARKE COUNTY, IND., FOR MAY, 1893.

Brazil Block Coal Co Brazil Block Coal Co., Clinton New Kentucky Coal Co., Clinton New Kentucky Coal Co., Clinton Mecca Mining Co., Rockville Parke County Coal Co., Rosedale	Coxville No. 3 No. 1 No. 2 Mecca Mining Co No. 6 No. 7	90   5   11   14   10   5   21   48   8   53   95   10	4 17 3 11 6 25 3 24 15 15 <sup>2</sup> 5 11 <sup>3</sup> 9 14 <sup>1</sup>	20,000 10,000 30,000 40,000 21,000 32,000 29,000 25,000 36,500
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# MONTHLY REPORT OF MINES IN PARKE COUNTY, IND., FOR JUNE, 1893.

Brazil Block Coal Co., Brazil Brazil Block Coal Co., Brazil New Kentucky Coal Co., Clinton New Kentucky Coal Co., Clinton Mecca Mining Co., Rockville Parke County Coal Co., Rosedale Parke County Coal Co., Rosedale Parke County Coal Co., Rosedale	Coxville No.3 No.1 No.2. Mecca Mining Col No.6	78 72 63 63 74 112 45 55 84	5 12 16 9 6 21 4 7	4 4 5 3 6 15 6 8	17 22 18 20 25 19 10 10 17	20.000 10,000 30,000 40,000 21,000 33,000 30,400 26,800 27,800
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## MONTHLY REPORT OF MINES IN PARKE COUNTY, IND., FOR JULY, 1898,

Brazil Block Coal Co., Brazil Brazil Block Coal Co., Brazil New Kentucky Coal Co., Clinton New Kentucky Coal Co., Clinton Mecca Mining Co., Rockville Parke County Coal Co., Rosedale	Coxville No.3 No.1 No.2. Mecca Mining Co No.6 No.7 No.8	60 70 65 102 33 52	5 14 13 12 6 21 4 7	4 6 5 5 6 15 6 8	14 12 22 24 16 17 8 18 14	30,000 22,000 30,000 40,000 20,000 31,000 29,300 27,000 289,000
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#### MONTHLY REPORT OF MINES IN PARKE COUNTY, IND., FOR AUGUST, 1893.

NAME AND ADDRESS OF COM- PANY.	NAME OF MINE.	Number of Persons Employed Inside.	Number of Persons Employed Outside.	Number of Mules or Horses Used in Mine.	Number of Days Worked in Month.	Number Cubic Feet of Air Circulating in Mine per Minute.
Brazil Block Coal Co., Brazil Brazil Block Coal Co., Brazil New Kentucky Coal Co., Clinton New Kentucky Coal Co., Clinton Mecca Mining Co., Rockville Parke County Coal Co., Rosedale Parke County Coal Co., Rosedale Parke County Coal Co., Rosedale Superior Block Coal Co., Brazil Superior Block Coal Co., Brazil	Coxville No.3 No.1 No.2 Mecca Mining Co No.6 No. 7 No. 8	165	5 14 22 18 5 21 4 7 10 12	4 6 7 5 5 15 4 7 8 1	20 19 24 <sup>1</sup> / <sub>2</sub> 27 16 12 <sup>1</sup> / <sub>2</sub> 10 <sup>3</sup> / <sub>3</sub> 	30,000 22,000 30,000 40,000 21,000 32,000 28,000 29,000 9,000

# MONTHLY REPORT OF MINES IN PARKE COUNTY, IND., FOR SEPTEMBER, 1893.

## MONTHLY REPORT OF MINES IN PARKE COUNTY, IND., FOR OCTOBER, 1893.

B. B. Coal Co., Brazil B. B. Coal Co., Brazil New Kentucky Coal Co., Clinton New Kentucky Coal Co., Clinton New Kentucky Coal Co., Clinton Mecca Mining Co., Rockville Parke County Coal Co., Rosedale Superior Coal Co., Brazil Crawford Coal Co., Brazil	Coxville No.3. No.1. No.2. Meeca M'ng Co. No.6. No.7. No.8. No.9. Superjor.	45 75 160	7 14 13 10 6 22 4 7 10 5 9	38656545835	14 20 19 18½ 19 23 16½ 23½ 24 23 8	18,600 34,900 21,000 33,000 27,000 25,000 26,800 21,000 21,500				

# MONTHLY REPORT OF MINES IN PARKE COUNTY, IND., FOR NOVEMBER, 1893.

#### MONTHLY REPORT OF MINES IN PARKE COUNTY, IND., FOR DECEMBER, 1893.

NAME AND ADDRESS OF COM- PANY.	NAME OF MINE.	Number of Persons Employed Inside.	Number of Persons Employed Outside.	Number of Mules or Horses Used in Mine.	No. of Days Worked in Month.	Number Cubic Feet of Air Circulating in Mine per Minute.
B. B. Coal Co., Brazil B. B. Coal Co., Brazil New Kentucky Coal Co., Clinton New Kentucky Goal Co., Clinton Mecca Mining Co., Boekville Parke Coal Co., Rosedale Parke Coal Co., Rosedale Parke Coal Co., Rosedale Parke Coal Co., Rosedale Superior Coal Co., Brazil Crawford Coal Co., Brazil	No. 1. No. 2°. Mecca M'ng Co. No. 6. No. 7. No. 8. No. 9. Superior.	142 96 110	6 16 17 6 22 5 7 11 6 8	6 10 9 	19 22 144 154 164 164 20 16	32,350 30,000 20,000 21,000 31,400 27,300 28,000 30,000 22,500

<sup>\*</sup>Not in operation during month.

Remarks.	This report is for Jan., 1893. This report is for Feb., 1893. This report is for Feb., 1893. This report is for March, 1893. This report is for June, 1893. This report is for Oct., 1893.
Number of Accidents.	
Number of Tons of Cosl Manufactured Into Coke.	
Number of Tons of Slack Produced.	88.00 9.00 9.00 9.00 1.00 1.00 1.00 1.00 1
lo suol lo redmuk IsoO mus AniM Looubead,	
Number of Tons of Screened Coal Pro- duced.	2325 3,2435 1,650
Amount of Money Im- Invested in Im- provements Dur- ing Month.	
Mumber Cubic Feet of Air Circulating in Mine per Minute,	3,906
Number of Days Worked in Month,	22282225222222000
Number of Mules or Horses Used in Mine.	40140140101010410101044
Number of Persons Employed Outside.	1000 40000000 4444400 <b>0</b>
Number of Persons Employed Inside.	######################################
NAME OF MINE.	NENGNANNANANANA O O O O O O O O O O O O O O O O O O O
NAME AND ADDRESS OF COMPANY.	Lancaster Block Goal Go., Glay Gity. J. F. Hyart, Goal Gity Lancaster Coal Goldy Lancaster Coal Goldy J. F. Hyart, Coal Gity J. F. Hyart, Goal Goldy J. F. Hyart, Goal Goldy J. F. Hyart, Goal Goldy Lancaster Goal Go., Clay Gity Lancaster Goal Go., Clay Gity Lancaster Coal Go., Glay Gity Lancaster Goal Go., Glay Gity

MONTHLY REPORT OF MINES IN FOUNTAIN COUNTY, IND., FOR 1893.

REIONI OF SIA	TE GEOLOGIST.
Remarks.	This report is for Jan., 1893. This report is for Feb., 1853. This report is for Anrel, 1893. This report is for April, 1893. This report is for May, 1893. This report is for June, 1893. This report is for Juny, 1893. This report is for Juny, 1893. This report is for Sept., 1893. This report is for Nov., 1893. This report is for Nov., 1893. Not in operation in Dec., 1893.
Number of Accidents.	
Number of Tons of Coal Manufactured between	
Number of Tons of Slack Produced.	: 8888888888 :
Number of Tons of Mine Kun Coal Produced.	2,749 1,373 1,373 2,162 2,162 2,092 2,286 2,408 2,408
Number of Tons of Sereened Coal Pro-duced.	318 307 307 370 370 51 251 253 333 440 80
Amount of Money Invested in Im- provements Dur- ing Month.	\$102 60 12 74 494 00
Number Cubic Feet of Air Circulating anual Mine per Minute.	9,700 9,860 9,860 10,500 10,500 10,500 10,500 10,500 10,500 11,600 11,600
Number of Days Worked in Month,	12 14 14 14 16 6 18 14 14 14 14 14 14 14 14 14 14 14 14 14
Number of Mules or Horses Used in Mine.	444400000000
Number of Persons. Employed Outside.	. *************************************
Number of Persons. Employed Inside.	484888868444
NAME OF MINE.	Shipman Shipman Shipman Shipman Shipman Shipman Shipman Shipman Shipman
NAME AND ADDRESS OF COMPANY.	Shipman Coal Co., Cayuga Shipman Coal Co., Cayuga

Table Showing Averege Number of Persons Employed Inside Mines, also Average Number of Persons Employed Outside Mines, also Average Number of Mules Used in Respective Counties, Etc.

NAME OF COUNTY.	Number of Persons Employed Inside.	Number of Persons Employed Outside.	Number of Mules Used.	Estimated Number of Men in Small Mines, to which the Law does not Apply.	Estimated Number Tons of Coal Pro- duced Out of Small Mines.	Estimated Number of Snall Mines to which the Law Does Not Apply.
Clay Daviess Fountain Green Gibson Knox Owen Perry Parke Pike Sullivan Spencer Vigo Vermillion Vanderburgh Warrick Dubois Martin Warren	2,454 429 45 484 30 41 33 64 715 259 312 255 63	229 50 7 45 10 25 9 98 66 101 3 54 38 54 17	165 55 55 40 3 4 4 10 59 33 53 53 1 38 27 7	30 16 10 4 3 5 5 5 24 6 17 8 75 50 6	9,000 6,700 3,900 500 500 1,250 9,606 1,500 2,000 6,500 15,000 1,000 1,000	55341249498785.3432
Total	6,392	816	535	223	47,250	86

# REPORT OF MINES IN CLAY COUNTY FOR THE YEAR 1893.

MONTH.	Number of Mines Operated Dur- ing Month.	Amount of Money Invested in Im- provements.	Total Tons Screened Coal Produced,	Total Tons Mine Run Coal Pro- duced.	Total Tons Slack Produced.		
January. February March. April May June July. August September October November. December Total	36	\$907 70	129,788	5,077	26,294		
	35	708 95	117,146	5,449	27,073		
	33	1,160 26	118,850	8,899	24,875		
	31	521 50	84,433	9,133	19,850		
	29	904 81	82,709	5,915	19,300		
	31	10,325 10	62,776	1,279	16,192		
	31	1,682 99	73,011	584	16,189		
	31	3,800 00	71,317	12,236	20,117		
	34	1,762 20	81,753	3,473	18,836		
	34	2,397 65	79,127	2,015	16,725		
	34	2,651 00	73,024	1,628	15,936		
	34	2,131 00	78,643	3,661	15,703		

# REPORT OF MINES IN GIBSON COUNTY FOR THE YEAR 1893.

August September. October November. December	1 1 2	10 00 25 00	1,800 2,000 2,150	
Total		\$80 00	 10,381	

# REPORT OF MINES IN GREENE COUNTY FOR THE YEAR 1893.

MONTH.	Number of Mines Operated During Month.	Amount Money Invested in Im- provements.	Total Tons Screened Coal Producted.	Total Tons Mine Run Coal Pro- duced,	Total Tons Sluck Produced.								
January Pebruary March April May June July August September October November December Total	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		\$24.951 25,933 20.6446 9,883 24.987 20.194 19,344 18,358 14,437 23 621 14,903 21,798	38,627 41,124 33,561 16,480 7,113 7,700 8,100 10,370 10,200 28,306 13,697 25,825	13,676 16,191 12,915 11,692 2,805 3,039 3,241 6,376 6,487 5,868 400 10,179								

# REPORT OF MINES IN DAVIESS COUNTY FOR THE YEAR 1893.

# REPORT OF MINES IN SPENCER COUNTY FOR THE YEAR 1893.

January. February March. April May. June. July. August September October November December		 	 	 	 	 		1								262 306 264 75 8 75 8 20 50 74 186 183	465 330 369 437 434 400 48 40 85 188 78	99 98 81 24 25 66
Total	ì								-	•	•	•	`,	•	<u> </u>	1,516	3,079	410

# MONTHLY REPORT OF MINES IN SULLIVAN COUNTY, IND. FOR 1893.

MONTH.	Number of Mines.	Amourt of Money Invested in Im- provements During Morth.	Number Tons Screened Coal Produced,	Number Tons Mine Run Coal Produced.	Number Tons Slack Produced.	Number Tons Coal Manufae- tured into Coke.	Number Acci- dents.
January February March April. May June July August September October November December	9 9 8 8 9 9 10 10	\$110 79 7 58 280 43 265 90 243 50 8 65 3,605 97 1,518 95 1,129 45	22,288 10,953 30,361 17,227 15,654 7,915 8,064 7,312 17,442 21,737 25,762 42,290 231,403	8,885 23,677 19,569 4,871 9,904 8,951 10,132 7,578 10,235 17,834 28,995 5,550	4,964 4,870 8,745 5,795 4,358 2,928 2,735 2,335 2,611 6,348 9,096 11,150 65,935	1,175 770 7785 820 930 970 5,450	1 1 2

# REPORT OF MINES IN PIKE COUNTY, IND., FOR THE YEAR 1893.

MONTH.	No, of Mines in Operation During Month.	Amount of Money Invested in Im- provements.	Total Tons Screened Coal Produced.	Total Teas Mine Run Coal Produced.	Total Tons Slack Produced,	How Much Manufac- tured into Coke.
January February March April May June July August September October November December	2 2 2 2 2 2 2 2 2 2 2 2		2,520 2,316 2,000 2,217 2,000 1,700 1,200 19,700 2,023 1,602 802	17,159 17,250 16,228 18,907 14,028 10,412 9,355 11,020 8,045 17,931 17,886 18,093	2,750 2,123 1,800 1,000 2,000 1,000 5,890 1,650 3,955 2,568 1,450 1,374	82

# REPORT OF MINES IN PARKE COUNTY, IND., FOR THE YEAR 1893.

	_	_	_		_	_	-	_	_	_	_	_	_	_	_	_		_	_	_			_			_			_			_	_	 		_
February March April May June July August September October November									• • • • • • • • • • • • • • • • • • • •	• • • • • • • • •				:	• • • • • • • • •					\$61 ,20 ,50 50	18 00 30 00 00	00000			3/ 3/ 20 19 20 20 20 41 41	4,4 4,1 7,4 6,3 9,4 1,0 1,9 1,9	28 27 94 42 50 69 88 22 57			1: 1: 1: 1: 1: 1: 1:	8,87 9,91 2,85 9,13 9,72 9,25 1,76 3,45 6,76 7,10	4 9 7 2 5 1 3		]	1,0 10,4 10,7 8,1 6,1 6,6 7,5 10,6 1,0	59 56 66 47 35 59 57 85
December		•	•	•	٠	٠	-	٠	٠	٠	٠	٠	( -	٠		ļ				5(	90	0	U	1	43	3,3	83			٠	•	- 1	ĺ	- 1	7,0	79
Total														•		-	_	-4	81	,6	18	0	0		378	8,0	99	-		114	,82	8	_	 11	8,5	17

# REPORT OF MINES IN PERRY COUNTY, IND., FOR THE YEAR 1893.

MONTHS.	Number of Mines.	Amount of Money Invested in Im- provements.	Total Tons Screened Coal Produced.	Total Tons Mine Run Coal Produced.	Total Tons of Slack Produced.
January February March April May June July August September October November December	2222222222		871 602 482 510 1,200 970 1,120 400 500 449 553 605	1,674 2,652 2,170 2,539 1,100 1,200 900 1,439 1,485 1,589 2,093 2,287 20,910	208 204 179 183 90 300 200 150 171 201 204 2,137

# REPORT OF MINES IN VIGO COUNTY, IND., FOR THE YEAR 1893.

January February March April May June July August September October	\$300 00 23,269 500 00 22,089 560 00 24,988 1,000 00 20,048 - 9,908 500 00 18,536 3,150 00 18,536 4,081 00 18,513 889 00 22,307	8,648 11,590 8,317 9,753 11,167 9,465 4,825 10,260 575 4,030 1,042 8,460 1,130 7,485 1,572 4,684 1,459 6,620 2,480 7,554
November	 8,861 00   23,767   650 00   24,361	2,480 7,554 1,491 11,620 393 12,030
Total	 \$20,631 00 247,066	43,119 103,581

# REPORT OF MINES IN VERMILLION COUNTY, IND., FOR THE YEAR 1893.

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MONTH.	Number of Mines Operated During Month.	Number of Persons Employed Inside.	Number of Persons Employed Outside.	Number of Mules or Horses Used.	Number of Days Worked.	Amount of Money Invested in Im- provements.	Total Tons Screened Coal Produced.	Total Tons Mine Run Coal Produced.	Total Tone Sluck Produced.
January February March April May June July August September October November December	44	268 263	26 37	23 23	85 72	\$1,325 00 515 00 1,000 00 325 00 	20,637 16,962 13,925 12,116 12,031 8,328 12,100 9,146 14,753 20,327 21,800 22,762	1,820 1,666 1,663 4,175 1,745 852 1,445 1,823 1,750 2,400	7,450 5,370 4,914 2,985 3,551 2,890 3,555 3,640 8,856 7,015 7,423 8,141

# REPORT OF MINES IN VANDERBURG COUNTY, IND., FOR THE YEAR 1893.

MONTHS.	Number of Mines.	Amount of Money Invested in Im- provements.	Total Tons Screened Coal Produced.	Total Tons Mine Run Coal Produced.	Total Tons of Slack Produced.
January. February March April May June July August September. October November December Total	55555555666	\$1,550 00 500 00 150 00 125 00 125 00 125 00 125 00 240 00 \$8,815 00	11,686 8,603 38,623 4,795 4,636 4,630 4,320 6,304 5,512 7,182 8,724 9,624	8,414 7,036 6,370 6,459 6,196 6,296 10,676 15,305 4,593 8,501 10,161	2,721 2,039 5,384 5,083 4,695 9,180 1,618 1,930 2,341 3,505 2,175 41,491

# REPORT OF MINES IN WARRICK COUNTY, IND., FOR THE YEAR 1893.

January. February March April May June. July August September. October	3	7,404 260 5,131 422 5,443 100 3,559 100 1,352 64 300 50 200 26 1,445 130 1,525 262 7,213 310 7,739 250
November	3	7,789 350 6,468 80
Total	\$318 00 13,976	47,834 2,198

# REPORT OF MINES IN KNOX COUNTY, IND., FOR THE YEAR 1893.

January. February March. April May June. July August September October November December.	2 \$71 24 2.378 2 57 10 2.216 2 1136 875 2 520 00 1.018 2 655 2 46 22 900 2 830 2 830 2 830 2 1,616 2 1,616 2 1,859	30 1,533 131 1,482 25 188 48 583 99 640 70 650 55 430 230 381 355 475 152 1,370 50 1,040 65 1,149
Total	\$905 92 16,505	1,290 9,881

Table Showing Number of Mines; Also Amount of Money Invested in Mine Improvements; Also Number of Tons of Screened Coal, Mine Run Coal and Slack, as Shown by Monthly Reports for Year 1893.

NAME OF COUNTY.	Number of Mine.	Amount of Money Invested in Im- provements.	Number of Tons of Screened Coal.	Number of Tons of Mine Run Coal.	Number of Tons of Slack Coal.	Total Tonage of All Grades of Coal.
Clay. Daviess. Fountain Green Gibson Knox. Owen Perry. Parke. Pike Sullivan. Spencer. Vigo Vermillion Vanderburgh Warrick Total	34 8 1 4 2 2 1 1 2 11 2 10 1 6 4 6 3	\$28,952 16 1,841 00 1,159 34 80 00 905 92 4,648 00 3,800 40 20,431 00 5,097 90 8,815 00 318 00 \$76,058 66	1,054,579 125,259 2,421 239,035 16,505 21,774 8,262 78,099 39,580 231,203 1,516 247,086 146,689 13,976	59,349 118,615 25,455 243,103 10,381 1,290 20,910 114,828 178,004 155,681 3,079 43,119 18,402 77,857 47,834	239,090 60,574 10,025 92,869 9,881 8,278 2,137 118,517 27,590 5450 416 103,581 53,593 41,491 2,198	1,353,018 404,448 37,901 575,007 10,381 27,676 30,052 31,309 311,444 245,174 392,334 5,911 393,765 264,081 266,037 64,008

# REPORT OF ASSISTANT MINE INSPECTOR.

To the Hon. Thomas McQuade:

I respectfully submit my third annual report for fractional part of calendar year ending October 10, 1893.

Respectfully,

WELMAN LACKEY.

# KNOX COUNTY.

#### BICKNELL MINE.

Operated by the Bicknell Coal Co., located at Bicknell, on I. & V. R. R. Inspected once and found to be in good condition, almost every feature of the law being complied with.

#### VINCENNES MINE.

Operated by the Vincennes Coal Co., located one-half mile east of Vincennes. This mine was abandoned on account of being unprofitable, the machinery being removed to Dugger, Sullivan County, Ind.

#### PROSPECT HILL MINE.

Operated by Frank Clark, located at Vincennes. It was inspected July 26. Less than ten men were employed in the mine. The ventilation was bad, the airways being partially closed on account of heaving of fire-clay.

# WARRICK COUNTY.

#### LANDER MINE.

Operated by the Lander-Woolley Coal Co., located one mile east of Boonville, on branch of Air Line R. R. Machines are used for mining coal in this mine. It was inspected August 3, and found in good condition.

## GOUGH MINE.

Operated by Robert Gough, located one-half mile east of Booaville, on branch of Air Line R. R. It was inspected August 3. Less than ten men are employed in this mine.

## STAR MINE.

Operated by John Archbold. Located at Newburgh, on the Ohio River. It was lying idle on account of repairs, on August 7, when visited.

# CHANDLER MINE.

Located at Chandler, on the Boonevill Branch of the Air Line R. R. Operated by Clemment & Co., successors to Hall & Bruce. This mine was not inspected, as it was lying idle for repairs at the time of my visit.

# VANDERBURGH COUNTY.

### INGLESIDES MINES.

Located at Evansville, on the Ohio River. Operated by John Ingle & Co. This mine was inspected on August 4. The ventilation was good. This mine is the oldest mine in the State. The excavation is very large. An endless rope is used for drawing coal in main entry, a distance of thirteen hundred yards. Other improvements are being made by putting new engines in, repairing tipple and hoisting shaft.

## COÖPERATIVE MINE.

Located one mile east of Evansville. Operated by the Evansville Coal Co., successors to the Evansville Coöperative Coal Co. It was inspected August 5 and found in bad condition. The ventilation was bad on account of the fan box not being properly closed, the law being violated in several instances. Notice was given the mining boss, Frank Lockhart, to make needed repairs.

## SUNNYSIDE MINE.

Located at Evansville. Operated by the Sunnyside Coal and Coke Company. It was inspected on August 6. The ventilation of the mine was generally good. They had not complied with the law in regard to a second outlet or man-way, for the violation of which I had entered suit. The case is still pending in Vanderburgh Circuit Court.

## SUNNYSIDE MINE NO. 2.

Located just west of Evansville. Operated by the Sunnyside Coal and Coke Co. This mine was not inspected on account of its being idle at the time of my visit on August 5.

# DIAMOND MINE.

Located northwest of Evansville. Operated by the Diamond Coal Mining Co. This mine was flooded with water at the time of my visit, and was not inspected.

## FIRST AVENUE MINE.

Located northeast of Evansville. Operated by the First Avenue Coal Mining Co. This mine was inspected on August 7. The mine was not in very good condition. This company is very indifferent in regard to complying with the law; consequently they have been prosecuted and fined for violating mining laws. However, some improvements have been made since my last visit.

# GIBSON COUNTY.

## FRISCO MINE.

Located at Francisco, on the Airline Railroad, six miles east of Princeton, operated by Robert Lander, successor to A. E. Powell. It was inspected on August 1. It had just been started, after lying idle for six months, and was in bad condition. Another visit was made in September, when I found the mine in very good condition.

## SPENCER COUNTY.

# LINCOLN MINE.

Located one mile from Lincoln City, on the Cannelton branch of the Airline Railroad. Owned by Henry Schaefer. This mine is operated principally for fire-clay, the coal being very low. Was not inspected on my last visit, as the mine was flooded with water.

# GREENE COUNTY.

## FLUEHART MINE.

Located one mile southwest of Linton, on the Greene County coal branch of the Indianapolis & Vincennes Railroad. Operated by the Linton Coal and Mining Co. It was inspected April 14, and found in bad condition. It was visited again in a short time and found in generally good condition.

#### ISLAND MINE No. 2.

Located one-half mile west of Linton. Operated by the Island Coal Company. This mine was inspected on January 26. The mine was in very good condition, with the exception of the ventilation, which was bad, on account of break-throughs being left open. This violation was prosecuted in Squire G. W. Ellis' court in Linton. The case was vennired to Squire Wakefield's court at Switz City. The law was held insufficient to hold prisoner, and an appeal was taken to the Circuit Court. The case is still pending.

## SUMMIT MINE.

Located one-half mile west of Linton, on a branch of the I. & V. and I. & I. S. R. R's. Operated by the Summit Coal Co. This mine was inspected January 2, and found in good condition, excepting breakthroughs, which were not bratticed as required by law. Consequently I prosecuted them in four cases in 'Squire Ellis' court. They were convicted, and fined ten dollars in each case.

# PIKE COUNTY.

# AYRSHIRE MINE.

Located five miles east of Oakland City, on the Air Line R. R. Owned by David Ingle. It was inspected on August 2, and found to be in good condition. This is a shaft just east of the old slope, and part of the workings are those worked by the old slope. Eighty miners, twenty-five day-men and fourteen mules are employed inside. Coal is found at a depth of 22 feet, and of fine quality. Some men are still employed in the old slope for the purpose of coaling railroad engines.

## BLACKBURN MINE.

Located at Blackburn, on the E. & I. R. R. This mine is now owned by S. W. Little. It was lying idle for repairs at the time of my visit.

# LITTLE'S MINE.

Located six miles southeast of Petersburgh, on the E. & I. R. R. This mine was inspected July 31, and found in good condition.

# PERRY COUNTY.

## TROY MINE.

Located at Troy, owned by Bergenroth Bros., was inspected once and found in good condition.

# CANNELTON MINE.

Located two miles east of Cannelton. Operated by the American Cannel Coal Co. It was lying idle for repairs at the time of my visit.

# DAVIESS COUNTY.

### MUTUAL MINE.

Owned by the Mutual Mining Co., located one mile south of Cannelburgh. This mine was inspected July 27, and found to be in good condition. A new cage had been put in since my last visit.

## WILSON MINE.

Located near Montgomery on the O. & M. Railroad. Owned by the Wilson Coal Company. Two visits were made to this mine. On my first visit found the air very bad, but on my second visit found the mine in generally good condition.

#### WILSON MINE NO. 2.

Owned by Wilson & Sons. Located three miles west of Washington on the E. & I. Railroad. The roof is bad on account of water percolating through. In other respects the condition of the mine was good on July 28, the time of my visit.

## MAPLE VALLEY MINE.

Owned by Cable & Co. Located two miles and one-half southwest of Washington. When last visited it was found to be in good working condition. All the men employed were working on pillars.

#### MINE No. 4.

Owned by Cable & Co.; located two miles south of Washington. This mine was inspected July 28, and found in good working condition.

#### MINE No. 7.

Owned by Cable & Co.; located one and one-half miles west of Washington. This mine was inspected July 28, and found in good condition.

7-Geology.

#### MINE No. 9.

Owned by Cable & Co.; located two and one-half miles southwest of Washington. This mine was in good working condition when last inspected. This is part of the Maple Valley mine, the shaft being sunk in the north works. Experienced some trouble with this company in regard to delivering timber. I made a special visit on this account, after which the timber was delivered, as requested by me.

## MURREY AND BAILEY MINE.

Operated by Sam. Rogers. Located six miles southwest of Washington on the E. & I. R. R. This mine was not inspected, as they were idle at time of my visit.

# SULLIVAN COUNTY.

#### DUGGER MINE.

Operated by the Dugger & Neal Coal Co., located at Dugger, on the I. & I. S. R. and I. & V. Coal Branch. Was inspected January 4. The ventilation was found to be bad on account of breakthroughs being left open. For this offense I entered suit in 'Squire Lusader's court at Sullivan. A later visit was made, when I found the breakthroughs closed and the air generally good.

## JUMBO MINE.

Operated by the Jackson Hill Coal and Coke Company, located at Hartersville, on branch of E. & T. H. R. R. This mine was inspected June 24. I found the ventilation bad on account of the main airway being closed by a fall of slate, which I ordered removed. I returned again in a short time and found the mine in good condition generally.

# ALUM CAVE MINE.

Operated by the New Pittsburgh Coal and Coke Co., located at Alum Cave, on branch of the E. & T. H. R. R. It was inspected July 11, and found in good working condition.

## OLD PITTSBURGH MINE.

Owned by the Old Pittsburgh Coal Co. Located at Hymera, on a branch of the E. & T. H. R. R. It was inspected January 21. The mine was in very good condition, with the exception that the air in some parts of the mine was bad, on account of the break throughs being left open, which they at once remedied. Coal is mined by machines. Power used, electricity.

#### STARK MINE.

Operated by Milton Stark & Son. Located at Hymera. This mine was inspected January 31. The condition of the mine was good, excepting there was no manway around the bottom of the shaft. For this offense they were fined, after which they complied with the law.

#### HANCOCK MINE.

Operated by Hancock & Conkel. Located at Farnsworth, on the I. & I. S. R. R. Five miles east of Sullivan. It was inspected January 24 and found in good working condition.

## CURRYVILLE MINE.

Operated by the Curryville Coal and Coke Company, located one-half mile north of Shelburn on the E. & T. H. Railroad. It was inspected July 13. The ventilation was good. There were no safety catches on the cages, but they were making the needed repairs at the time of my visit.

# SHELBURN MINE.

Operated by the Shelburn Coal Company, located at Shelburn on the E. & T. H. Railroad. It was inspected July 13. The ventilation was generally good. The air was moving a little slow in some parts of the mine, the volume of air being 10,100 cubic feet per minute. No gas was discovered in any part of the mine at the time of my visit.

A special visit was made on September 6 on account of a gas explosion which occurred on September 5, in which eleven men were injured, the injuries proving fatal to three.

## SUPERIOR MINE.

Operated by the Island Coal Co., located one mile and a half west of Dugger, on a branch of the I. & V. R. R. This mine was abandoned about the first of June on account of the tipple being burned.

#### LYONTON MINE.

Operated by Magill & Raines, located at Lyonton, two miles west of Dugger. It was inspected on February 20. Some parts of the mine were in bad condition on account of the air-ways being closed. The men in two entries went out until they could be put in fit condition to work. I made another visit in a short time and found the men all at work, and the air good.

#### BRIAR HILL MINE.

Located just north of Dugger, operated by the Dugger Cooperative Coal Co. This is a new mine, and is yet being worked on a small scale.

# ACCIDENTS—FATAL.

Oliver C. Blevens, killed by shot of coal on May 26, 1893, in Alum Cave mine, in Sullivan County. Operated by the New Pittsburgh Coal and Coke Co.

Willis Powell, killed by fall of slate, in Jumbo mine, operated by the Jackson Hill Coal and Coke Co., on June 17, in Sullivan County.

Michael Haney, killed by shot of coal on July 21, 1893, in Frisco Mine, operated by Robert Lander, in Gibson County.

Pid or Gallant Hays, died on September 9, 1893, from injuries received from gas explosion in Shelburn Mine, on September 5, 1893, operated by the Shelburn Coal Co., in Sullivan County.

Simpson Elwick, died September 11, 1893, from injuries received in gas explosion in Shelburn Mine, on September 5, 1893, operated by Shelburn Coal Co., in Sullivan County.

Henry Hodges, died from injuries received in gas explosion in Shelburn Mine, on September 5, 1893, operated by the Shelburn Coal Co., in Sullivan County.

# ACCIDENTS-NON-FATAL.

George Yates, Levi Bardsley, George Brown, Ransom Kempt, Thomas Mills and Albert Norton were injured by a gas explosion which occurred in Shelburn Mine on September 5, 1893, operated by Shelburn Coal Co., in Sullivan County.

George Farris, hand broken by fall of slate January 18, 1893, in Sunnyside Mine, operated by Sunnyside Coal and Coke Co., in Vanderburgh County.

Henry O'Loughlin, collar bone broken by being caught between car and cross timber while driving on February 24, 1893, in First Avenue Mine, operated by First Avenue Coal Mining Co., in Vanderburgh County.

Alvin Dudley, ribs broken by falling coal on March 7, 1893, in Lyonton Mine, operated by Magill & Raines, in Sullivan County.

Table Giving Name of Mine, Also Kind of Mine, Power Used, Kind of Coal, Thickness of Vein, Depth From Surface and How Ventilated.

	M	INES I	N DAVIESS COUNTY	•			
NAME OF MINE.	Kind of Mine.	Power Used.	KIND OF COAL.	Seam Worked.	Coal, Thickness.	Depth from Sur- face.	How Ventilated.
Maple Valley	Shaft. Shaft. Shaft. Shaft. Shaft. Shaft. Shaft.	Steam. Steam. Steam. Steam. Steam. Steam.	Bituminous Bituminous Bituminous Bituminous Bituminous	L L L L M I K	Ft.1n. 5 4 7 5 3 6	Ft, 74 49 66 86 100 100 50	Fan. Fan. Fan. Fan. Fan. Fan. Fan.
	Ŋ	IINES I	IN GREEN COUNTY.			-	
Island No.2 Summit	Shaft. Shaft. Shaft.	Steam. Steam.	Bituminous	L. L. L.	Ft. In. 5 6 5 6	Ft. 70 76 72	Fan. Fan. Fan.
		MINES	IN PIKE COUNTY.				
Ayrshire	Shaft. Slope. Shaft.	Steam. Steam.	Bituminous	K. K. K.	Ft. In. 5 7 7	Ft. 30 80 80 80	Fan. Furnace. Fan.
		MINES	IN KNOX COUNTY.				
Bicknell	Shaft. Shait.	Steam.	Bituminous Bituminous	K M	Ft. In.	Ft. 98 340	Fan. Fan.
	Ŋ	IINES I	IN GIBSON COUNTY	•			
Frisco	Shaft.	Steam.	Bituminous	K	Ft. In.	Ft. 130	Fan.
		MINES	IN PERRY COUNTY				
Troy	Shaft. Drift.	Steam Horse.	Bituminous Semi-block	G F	Ft. In.	Ft. 80 150	Furnace. Furnace.

## MINES IN VANDERBURGH COUNTY.

NAME OF MINE.	Kind of Mine.	Power Used.	Kind of Coal.	Seam Worked.	Coal, Thickness.	Depth from Surface.	How Ventilated.
Engleside	Shaft. Shaft. Shaft. Shaft. Shaft. Shaft.	Steam. Steam. Steam. Steam. Steam. Steam.	Bituminous Bituminous Bituminous Bituminous	K K K K K K K	Ft. In. 4 4 4 4 4 4 4	Ft. 265 265 265 257 260 260 255	Fan. Fan. Fan. Fan. Fan. Fan.

# MINES IN WARRICK COUNTY.

Lawder	Shaft.	Steam.	Bituminous	K	Ft. In. 7 7 7 4 3 6	Ft. 30 50 128 50	Fan. Furnace. Furnace. Fan.
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## MINES IN SULLIVAN COUNTY.

Currysville. Shelburn Hancock Lyonton. Dugger Alum Cave. Old Pittsburgh Stark Jumbo Briar Hill.	Shaft. Steam. Shaft. Steam. Shaft. Steam. Shaft. Steam. Shaft. Steam. Shaft. Steam. Shaft. Horse. Shaft. Steam.	Bituminous Bituminous Bituminous Bituminous Bituminous Bituminous Bituminous Bituminous	L.L.L.K.L.L.	Ft. In. 5 5 5 6 6 5 5 6 5 6	Ft. 248 248 70 50 100 40 30 100	Fan. Fan. Fan. Fan. Fan. Fan. Furnace. Fan.
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#### MINES IN SPENCER COUNTY.

Lincoln	Shaft.	Steam.	Bituminous		G.	Ft. In.	Ft. 23	Furnace.
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# REPORT OF ASSISTANT MINE INSPECTOR.

MR. THOS. McQUADE, Brazil, Indiana,
Inspector of Mines, State of Indiana:

SIR—In conformity with section 5 of the Revised Statutes of the State of Indiana, defining the duties of the State Inspector of Mines, I herewith submit my report for the fourth quarter of the year ending December 31, 1893, and for the time I was filling said office in the year 1893.

Respectfully,

M. COMMESKY.

Assistant Inspector of Mines for the State of Indiana.

# PERRY COUNTY.

#### CANNELTON MINES.

Owned by the American Cannel Coal Company, of Cannelton, Ind. The mine is located three miles northeast of the city of Cannelton, and is operated by drift. The coal is from two to four feet in thickness and of a good quality. This mine was inspected on October 23, 1893, and found in good condition.

#### TROY MINE.

Owned and operated by Burgenroth Bros., of Troy, Ind. The mine is located one-half mile east of Troy, and is operated by shaft. The mine was inspected on October 24, 1893. The ventilation in some parts of the mine was found to be bad, owing to no fire in the furnace. I had the promise of the mine foreman that the furnace would be put in order at once and the same would not be neglected hereafter.

# SPENCER COUNTY.

### LINCOLN CITY MINE.

Owned and operated by Henry Schafer, of Lincoln City, Ind. The mine was not inspected, as I found they were only working six men, therefore not coming under the mining law.

# WARRICK COUNTY.

#### STAR MINE.

Operated by John Archibald, of Newburg, Ind. The mine is operated by shaft one hundred feet in depth. The coal is four feet in thickness. This mine, when inspected, was found in good condition, as to ventilation, but I found no stairway in the second outlet. I requested that a stairway be put in, and the company agreed to comply with my request.

### CHANDLER MINE.

Operated by Clement Vogt Coal Company, of Chandler. The mine is operated by a shaft, one hundred and ten-feet in depth, the thickness of the coal is four and one-half feet. When inspected the condition of this mine was good.

#### DE FOREST MINE.

Operated by Thomas Hall & Co., of De Forest, Ind. This mine was not in operation, therefore I can not say what condition the mine was in at that time.

#### LAWDER MINE.

Owned and operated by the R. Lawder & Woolly Coal Mining Co., of Boonville, Ind. The mine was not in operation when visited.

#### GOUGH MINE.

Owned and operated by R. Gough, Boonville, Ind. This mine was working less than ten men, therefore was not inspected.

# VANDERBURGH COUNTY.

## INGLESIDE MINE.

Owned and operated by John Ingle & Co., Evansville, Ind. This mine took fire on the 27th of September, in the bottom timbers. No one was injured, but eleven mules were suffocated by the fire. The damages were reported at \$4,000. The mine was not in operation, therefore was not inspected.

#### CO-OPERATIVE MINE.

Owned and operated by the Evansville Coal and Mining Company, of Evansville, Ind. This mine is operated by a shaft 232 feet in depth. The coal is four feet in thickness. This mine was inspected on the 20th of October, and I found it in bad condition. I called the attention of the management to what was necessary to put the mine in compliance with the law, and the company made the changes that were necessary.

# VANDERBURGH COUNTY.

#### SUNNYSIDE MINE.

Operated by the Sunnyside Coal and Coke Co., of Evansville, Ind. This mine is operated by a shaft 260 feet in depth. The coal is 4 feet in thickness. The coal in this mine is mined by machines. This mine was inspected on the 25th of October, and found in fair condition.

## UNITY MINE.

Operated by the Sunnyside Coal and Coke Co., of Evansville, Ind. This mine was not inspected, owing to the fact that they were operating with less than ten persons at that time.

## FIRST AVENUE MINE.

Operated by C. Thomas. This mine is operated by a shaft 265 feet in depth. The coal is 4 feet in thickness. The mine was inspected October 21, and found in fair condition, but I found the company was not complying with the law in regard to the stairway in the second outlet. I asked that a stairway be placed in the outlet at once.

#### DIAMOND MINE.

Operated by the Diamond Coal and Mining Co., of Evansville, Ind. This mine is operated by a shaft 240 feet in depth. The coal is 4 feet in thickness. It was inspected October 21, and found in good condition below, but I found no stairway in the second outlet, which I ordered put in. I also found they were not using the lawful signals for hoisting and lowering the cages in the mine. This I asked to be changed to the right signal.

# PIKE COUNTY.

#### AYRSHIRE MINE.

Owned and operated by D. Ingle, Oakland City, Ind. This mine is located at Ayrshire, Pike County, six miles east of Oakland City, on the Air Line Railroad. It was inspected on the 21st of November. The condition of the mine was good. This is a new mine, with all the latest improved machinery to handle coal on top with.

## LITTLE'S MINE.

Owned by S. W. Little, at Little Station, Pike County. This mine is on the Evansville & Iudianapolis Railroad. It was inspected on the 22d of November. I found it in good condition. The mine is operated by a shaft 86 feet in depth. The coal is 6 and 7 feet in thickness.

## POSEY MINE

Operated by the Posey Co-operative Coal Co. It was not in operation when visited, and has since been sold to S. W. Little, of Blackburn, Pike County.

# GIBSON COUNTY.

## FRANCISCO MINE.

Operated by R. Lawder, of Francisco, Ind. This mine is operated by a shaft 128 feet in depth. The coal is 4 feet in thickness. The condition of mine when inspected was good. The company had put down the second shaft, but it was not complete as to stairways.

# KNOX COUNTY.

#### PROSPECT HILL MINE.

Operated by F. Clark, of Vincennes, Ind. It was inspected on the 27th of November, and found in bad condition. Many changes were ordered made to place the mine in compliance with the law. This is the deepest shaft in the State. The coal is three feet in thickness.

## BICKNELL MINE

Operated by the Bicknell Coal and Mining Co., of Bicknell, Ind. This mine is operated by a shaft 92 feet in depth. It was not in operation when I was there to inspect it.

# DAVIESS COUNTY.

## WILSON MINE.

Owned and operated by John Wilson & Sons, of Washington, Ind. This mine is located one-half mile northwest of Washington and is operated by a shaft. The coal is six feet in thickness and of excellent quality.

#### CABLE MINE NO. 7.

Owned by Cable & Co., of Washington, Ind. Mine No. 7 is operated by a shaft sixty-two feet in depth. The thickness of the coal is six and one-half feet. This mine is about worked out.

## CABLE MINE NO. 4.

Owned by Cable & Co.

### CABLE MINE NO. 9.

Owned by Cable & Co., and is operated by a shaft. This is the largest mine now in operation in Daviess County. When inspected they were working sixty-six persons and six mules.

#### MAPLE VALLEY MINES.

Owned by Cable & Company. This mine is located two miles south-west of Washington. When inspected it was found in parts very warm. Some changes were ordered made to better ventilate the mine.

## MONTGOMERY MINE.

Operated by the Wilson Coal Company of Montgomery, Ind. This mine is operated by a shaft. The coal is four feet in thickness.

## MUTUAL MINE.

Operated by the Mutual Mining Company, of Cannelburg, Ind. This mine is operated by a shaft. The coal mined in this mine is cannel and bituminous cannel, three and three and one-half feet in thickness. The bituminous is one and one-half feet in thickness.

# WHITE RIVER VALLEY MINE.

Owned by S. Rogers, of Washington, Ind. This mine has not been in operation for some time.

# GREENE COUNTY.

### ISLAND MINE No. 2.

Owned by the Island Coal Company, at Linton, Ind. Island Mine No. 2 is one of the largest mines in the State. It is a machine mine, equipped with all the latest improved machinery for mining and handling coal. The Harrison machine is used in the mine. The coal is excellent steam and domestic coal. The mine is operated by a shaft ninety-five feet in depth. The coal is five feet in thickness.

#### SUMMIT MINE.

Located one and one-half miles west of Linton, Ind., and owned by the Summit Coal and Mining Company, of Dugger, Ind. This mine was inspected November 7. As the doors conducting the air were in bad condition, I ordered the management to repair them, which was done at once.

### BUCKEYE MINE.

Operated by the Linton Coal and Mining Company, of Linton., Ind. This mine is located southwest of Linton, and is operated by a shaft. The coal is five feet in thickness, of a good quality for steam or domestic purposes.

#### ISLAND VALLEY MINE.

Operated by the Island Valley Coal Company, of Linton, Ind. This mine is located two miles southeast of Linton, on the branch of the I. & V. R. R. The mine is very complete, and produces an excellent quality of coal for steam and domestic use. This mine is operated by a shaft.

# SULLIVAN COUNTY.

## DUGGER MINE.

Operated by the Dugger and Neal Coal Company, of Dugger, Ind. This mine is operated by a shaft. The worked coal is five feet in thickness. When inspected one hundred and forty-two men were at work.

### DUGGER CO-OPERATIVE MINE.

Operated by the J. Freeman Coal and Mining Company, of Dugger, Ind. This is a new mine and is operated by a shaft.

## LYONTON MINE.

Operated by the Lyonton Coal Company, of Lyonton, Ind. This mine is worked on a small scale. It was inspected on December 13. This mine is operated by a shaft forty-five feet in depth. The coal is five feet in thickness.

# SULLIVAN COUNTY.

## BUNKER HILL MINE.

Operated by Hancock & Conkle, of Farnsworth, Ind. Bunker Hill Mine is operated by shaft, seventy-two feet in depth. The coal mined is four feet in thickness. Lately the mine has been repaired, and is now in good condition.

## SHELBURN MINE.

Operated by the Shelburn Coal Company, of Shelburn, Ind. The mine is operated by shaft, two hundred and forty feet in depth. The coal is five and one-half feet in thickness.

#### CURRYSVILLE MINE.

Operated by the Currysville Coal and Coke Company, of Shelburn, Ind. This mine is operated by a shaft, two hundred and forty feet in depth. It was inspected on the 8th of December and found in bad condition. Many changes were ordered made.

#### OLD PITTSBURG MINE.

Operated by the Old Pittsburg Coal Company, of Hymera, Ind. The mine is operated by shaft, fifty feet in depth. The coal is five and one-half feet in thickness. The coal is mined by electric machines, and is hauled to the bottom of the shaft by electric motors.

#### LITTLE PITTSBURG MINE.

Operated by Starks & Son, of Hymera. It is worked by a shaft. The coal is hoisted out of the shaft by horse-power. The mine is worked on a small scale.

#### NEW PITTSBURG MINE.

Operated by the New Pittsburg Coal and Coke Company, of Alum Cave, Ind. The mine, located in the northeastern part of Sullivan County, is among the largest in the State. The coal is from six to eight feet in thickness, and is mined by machinery.

#### JACKSON HILL MINE.

Operated by the Jackson Hill Coal and Coke Company, at Eagle, Ind. This mine is operated by a shaft. The coal is five feet in thickness. The mine is located in the northeastern part of Sullivan County, and is a machine mine.

# SMALL MINES.

## SULLIVAN COUNTY.

Number of mines employing less than ten men in Sullivan County, 8; number of men in the eight mines, 27.

## GREENE COUNTY.

Number of mines employing less than ten men, 4; number of men employed, 11.

## DAVIESS COUNTY.

Number of mines employing less than ten men, 5; number of men, 16.

## KNOX COUNTY.

Number of mines employing less than ten men, 2; number of men, 5.

# PIKE COUNTY.

Number of mines employing less than ten men, 9; number of men employed, 17.

# DUBOIS COUNTY.

Number of mines employing less than ten men, 4; men employed, 9.

# WARRICK COUNTY.

Number of mines employing less than ten men, 3; men employed, 7.

## SPENCER COUNTY.

Number of mines employing less than ten men, 7; men employed, 15.

## PERRY COUNTY.

Number of mines employing less than ten men, 9; number of men employed, 24.

# NON-FATAL ACCIDENTS.

Patrick O'Maley, leg broken by fall of slate in Prospect Hill Mine, November 18, 1893. Prospect Hill Mine is located at Vincennes, Knox County.

William Bewger had a finger taken off while riding on the cars in Sunnyside Mine, December 29, 1893, at Evansville, Vanderburgh County.

William Gray and George Williams, both slightly injured by blast at Evansville, Vanderburgh County.

James Skull, slightly injured on the 9th of October, 1893, by a fall of slate in the Jackson Hill Mine, Sullivan County.

Ora Huff, slightly injured on the 16th of November, 1893, by blast at the Lyonton Mine, Sullivan County.

John Bredeway, leg broken by a fall of coal in Island City Mine No. 2 on the 2d of December, 1893, in Greene County.

Joseph Easley was slightly injured by a fall of slate in Cable No. 4 Mine, December 23, 1893, near Washington, Daviess County.

Jesse Gibner was injured in the Buckeye Mine, October, 1893, by a fall of slate at Cannelburg, Daviess County.

The total number of mines employing more than ten persons each, and reporting to this office, for the quarter ending December 31, 1893, I find as follows:

Sullivan County													10
Greene County													4
Daviess County													8
Knox County .													
Pike County .													
Gibson County													
Vanderburgh Co	un	ty											6
Warrick County													4
Spencer County													
Perry County .													
•													

Total number of such mines reporting for the above quarter . 41

There will be eleven new mines to add to the above number in the next report.